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ABSTRACT

The purpose of this report is to address the impact of several federally funded health programs serving rural Texans. The first section presents an overview of the statistical indices which demonstrate the current health status of rural Texans (health care problems of rural Texans exceed those of urban Texans, yet rural Texans have fewer resources to deal with these problems). The second section briefly traces the history of the Public Health Service (PHS) and then discusses four specific PHS programs--the Community Health Center Program, Rural Health Initiative (RHI) program, Migrant Health Program, and the National Health Service Corps (NHSC) Program. The next section addresses the impact of those primary health care programs on rural Texans; in 1980 there were 39 RHI clinic sites serving 46 counties, 18 migrant health clinics with 37 sites, and 120 NHSC personnel were employed in rural and migrant programs. The report provides an analysis of a survey (responded to by all but two clinics) which evaluated the impact on rural Texas of the RHI, Migrant Health, and NHSC programs. Although these programs have benefitted their target populations, it was found that budgetary cutbacks by the Federal government affected program ability to meet survey criteria. (BRR)

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The Impact of Selected Federal Health Programs on Rural Texas

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The Impact of Selected Federal Health Programs on Rural Texas

Prepared by:

Elaine McManus, RN, MSN
Research Associate

Mary Walker, RN, PhD, FAAN
Program Director

Helen Austin, RN, MA
Research Associate

Karen Mountain, RN, MSN
Research Associate

Texas Rural Health Field
Services Program
University of Texas
School of Nursing
1700 Red River
Austin, Texas 78701-1499
(512) 471-7311

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August, 1982

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Introduction

The ultimate goal of health care is the improved health status of the population served. The health status of Texans has long been an issue addressed by both federal and state governments. National administrations have evidenced different attitudes about the appropriate degree of federal involvement in state health care delivery.

During the last 20 years the country has experienced a trend towards more federal involvement and responsibility for health care, particularly for people in underserved areas. Concern has mounted and additional federal responsibility has evolved as government officials have become cognizant of the difficulties certain groups experience in obtaining access to health care. Accessibility has been affected by physical, financial and at times, cultural factors, creating barriers to health care delivery.

Since the inauguration of President Reagan, the federal government has begun to reassess its involvement and responsibility in the delivery of health services. Current federal budgetary trends reflect a philosophy of less direct involvement in health care programs and a perception that responsibility for health care delivery should originate at the state level.

The purpose of this report is to address several federally funded health programs that serve rural Texans. The report is divided into three different sections: 1) the health status of rural Texas; 2) a review of the Community Health Centers Program, Migrant Health Program, Rural Health Initiative Program and the National Health Service Corps; and 3) the impact of these programs upon rural Texans.

The first section presents an overview of the statistical indices which demonstrate the current health status of rural Texans. The foci of the section are non-metropolitan counties in Texas which are medically underserved and are thus the recipients of federally funded health care programs.

The second section begins by briefly tracing the history of Public Health Service. Next, four specific programs of the Public Health Service will be presented. A legislative history opens the discussion of each program. This history traces the rationale for change during the development of these programs. After the legislative history the following topics will be discussed for each program:

1) the rules and regulations as they currently exist;
2) eligibility for the programs;
3) the application process;
4) criteria for funding;
5) the target population; and
6) the services provided by each program.

Section three addresses the impact of the federal programs in rural Texas. This section provides the number, the location, the counties served, the cost per medical encounter, the sources of payment, and the grant monies for the Rural Health Initiatives, Migrant Health Clinics and NHSC in nonmetropolitan Texas. To broaden the picture of the impact of the selected federal health programs on rural Texans a survey was conducted. The results of the survey will be presented in aggregate form; with some data presented individually to indicate the unique situations at the various clinics. Infant mortality and general mortality rates for a fifteen year period are compared to demonstrate impact. Impediments to

the delivery of health care to rural Texans will be discussed. An assessment will be conducted to determine the impact of the federally funded health programs on the health status on rural Texans.

The Health Status of Rural Texas

Texas is the second largest state in land area in the United States. It has an area of 267,339 square miles. Fourteen point two million people are served by the health care delivery system in Texas. The population density in rural counties is low; approximately 20 percent of the total population resides on 80 percent of the land. The combination of low population density and large land area create multiple problems with health care services for rural Texans.[44,54]

There exists in the minds of most people the myth that rural life is especially healthy. In fact, the mental and physical health of rural Texans is markedly worse than that of urban Texans. If health is defined in terms of environmental, physical, mental and social factors, it is inaccurate to say that rural residents are receiving <u>health</u> care. Rural residents do have some access to <u>medical</u> care, but even this is often limited by poverty, lack of health insurance or coverage under public programs, cultural barriers, racial discrimination, and limited education. Few things are of as much concern to rural Texans as access to <u>health</u> care.[45]

Rural communities are considered to be places where the air is clean, the sky is blue and the life style is something to be envied. However, rural Texans struggle to secure health benefits which are prevalent in metropolitan areas. Statistics show that accidents are higher in rural

areas than in urban areas. Rural residents experience more days of disability and more chronic illness than their urban counterparts. With equal frequency to most urban areas, rural living produces drug abuse, child abuse, battered wives, depression and teenage pregnancy. In addition, rural Texans are less educated, more impoverished, and die sooner than urban Texans. Rounding out this gloomy picture are substandard housing, poor communication and transportation systems, and inadequate sewage and water systems.[45]

The health care problems of rural Texans exceed those of urban Texans. Worse yet, rural Texans have fewer resources to deal with these problems. Thus, the impact of the reduction of government support for health care services may be greater for rural Texans and should be carefully evaluated.

The following discussion of the health status of rural Texans will focus on rural Texas counties designated by the Department of Health and Human Services as medically underserved areas (MUAs) and health manpower shortage areas (HMSAs). A general remark will be presented about rural Texas counties which meet the criteria to receive federal health care assistance. This is followed by specific criteria for designation as MUAs and how the rural counties meet these criteria. Then the criteria for health manpower shortage area designation will be discussed. Finally, a section discussing high migrant impact areas will be presented reflecting their status in Texas.

Medically Underserved Areas

Factors which are considered when designating an area as medically underserved (MUA) are: inadequate primary physicians to population rates, high infant mortality rates, high percent of the population who are elderly, and a high percent of population living below the poverty line.

Texas has a total of 254 counties; 228 of these are partially or wholly designated as medically underserved. One hundred and sixty-four of the 200 nonmetropolitan counties (82%) are medically underserved (Map 1). An additional sixteen nonmetropolitan counties are partially underserved. The status of counties designated as medically underserved has changed slightly in the last decade. This change may be due to changes in the formula used for computing medically underserved areas. In 1970, there were 179 counties in Texas which were classified as medically underserved. Today, 164 counties have this designation. Criteria for medically underserved status, presented in conjunction with statistical data for nonmetropolitan counties in Texas, will now be addressed.[18]

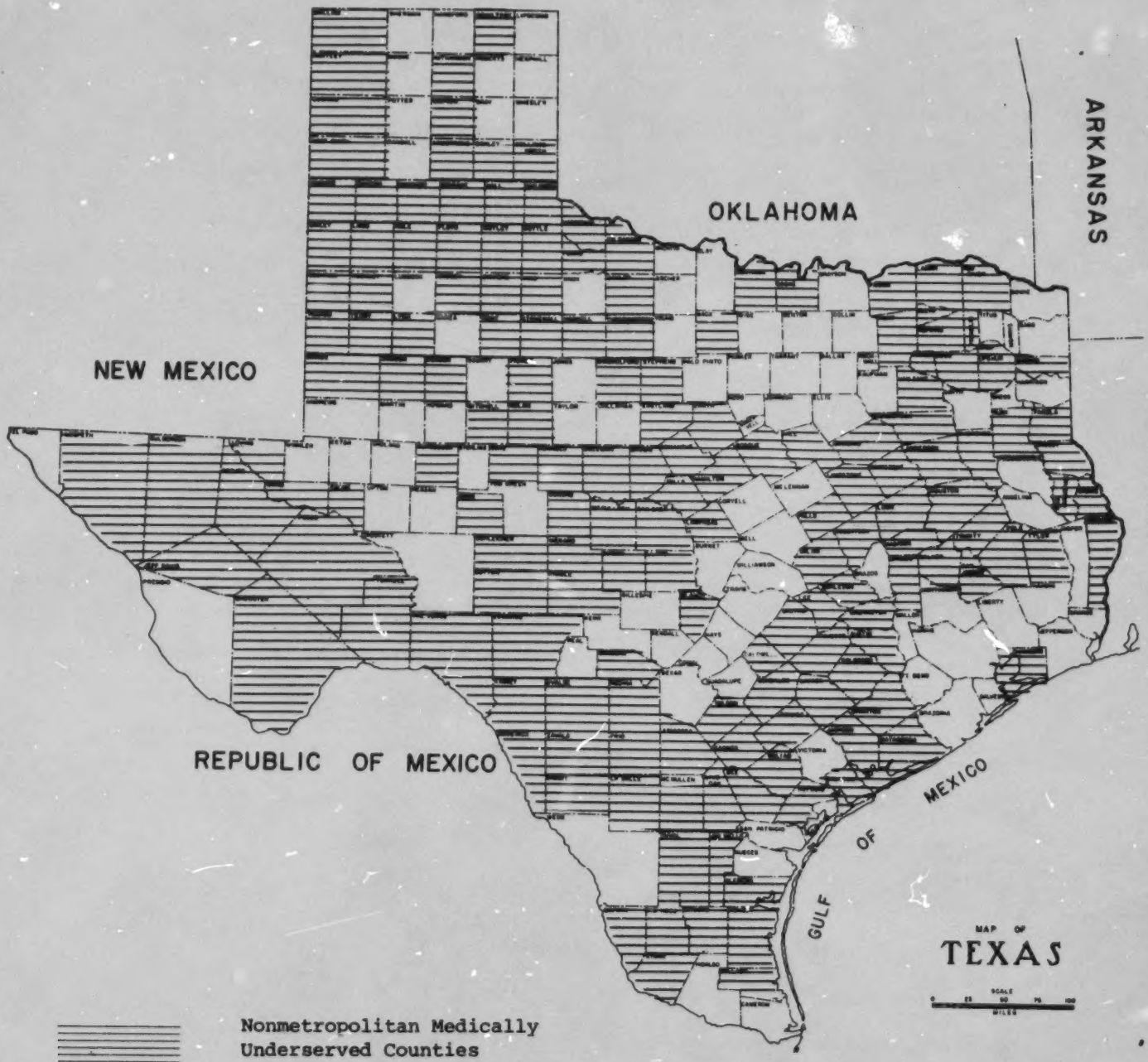
Health Manpower

Data for August 1980 reflects that there are 22,676 physicians providing direct patient care in Texas. Of this total, 9,331 or 41 percent are classified as primary care providers. Seventeen percent of the primary care physicians are located in counties of 49,999 or less. Ninety percent of physicians other than primary care physicians practice in counties of 50,000 or more as compared with ten percent in counties of 49,999 or less.[45,55]

In 1980, there were an estimated 627 people for every one physician. The ratio of primary care physicians to population is one to 1525. For metropolitan Texas there is one doctor for every 549 people, while in non-metropolitan Texas there is one doctor for every 1,328 people. For counties that are nonmetropolitan and have a population of less than 30,000 the physician to population ratio is one to 1406. These data reflect a shortage of doctors, both primary care and specialists, for rural Texans.[45,55]

Map 1

Nonmetropolitan Medically Underserved
Counties in Texas



Source: Regional Office of the U.S. Department of Health and Human Services, Dallas, Texas, June, 1981.

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Infant Mortality

In 1979, there were 14.1 deaths of infants under one year of age per 1,000 live births in non-metropolitan Texas as compared to 12.6 metropolitan infant deaths per 1,000 live births. Infant mortality rates for minorities in rural counties are about twice as high as rates for whites. One in every four babies born in Texas has a low birth weight, an incidence 20 percent higher than the national average.[45,46,51]

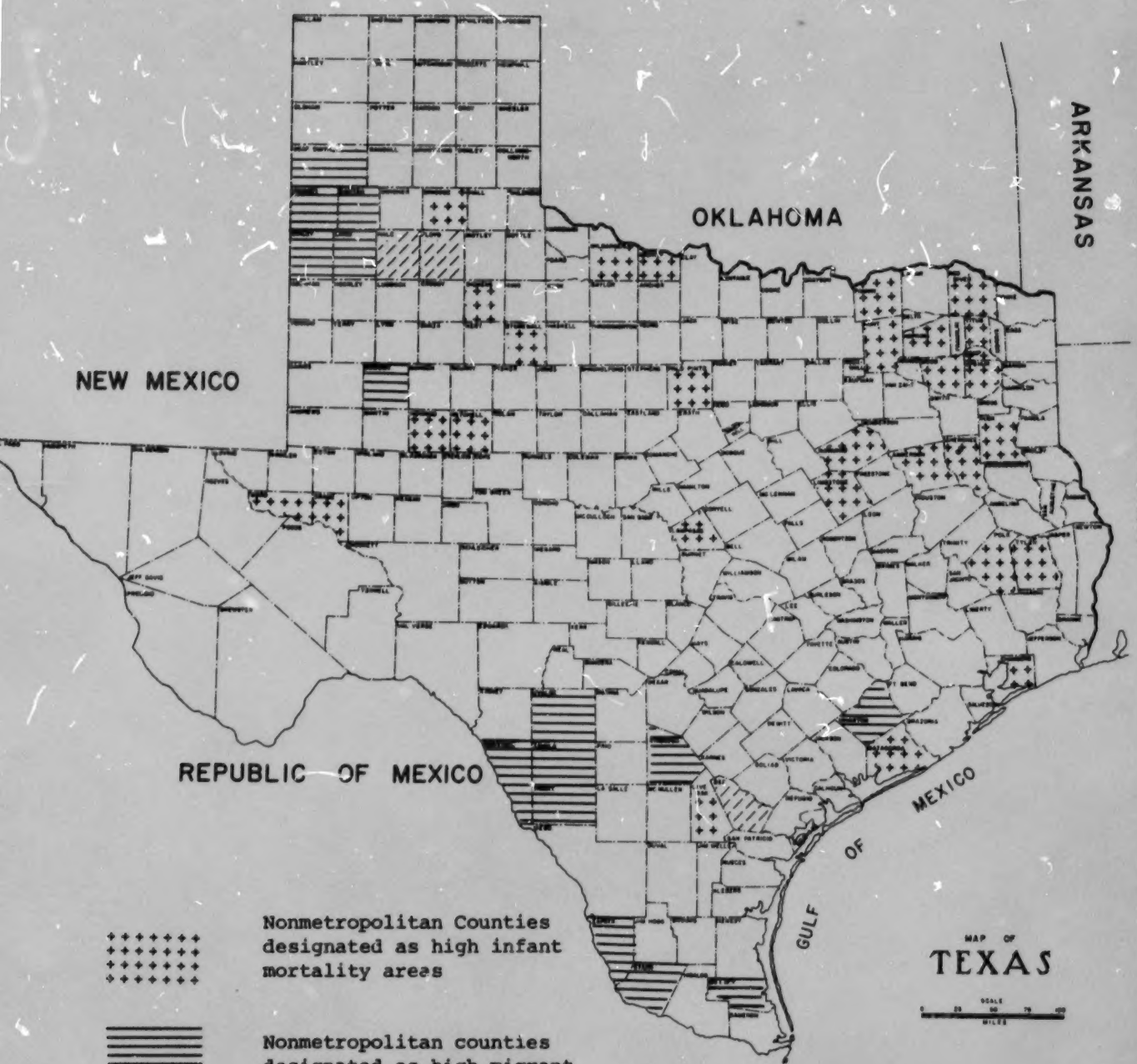
Non-metropolitan counties in Texas designated as high infant mortality areas are presented in Map 2. Thirty-two non-metropolitan medically underserved counties, 18.7%, have high infant mortality rates and are not served by federal programs. Less than 40 percent of the high infant mortality counties are served by Rural Health Initiatives or Migrant Health Clinics.[18]

Elderly

Population projections estimated 1,455,326 people 65 years or older living in Texas by the end of 1980. This is 10.2 percent of the state's total projected population and represents an increasing elderly population. Thirty-four percent of the state's elderly population reside in non-metropolitan counties. Thirty-two percent of the 1,251,129 Medicare enrollees 65 years and older live in non-metropolitan Texas. Twenty-seven percent of the total Medicare enrollees reside in rural counties which are now designated as medically underserved. The median income for families headed by persons over age 65 tends to be less than one half of the median income for families headed by persons under the age of 65.[44,45] (Map 3)

Map 2

Nonmetropolitan Counties in Texas Designated as High Infant Mortality Areas and/or High Migrant Impact Areas


OKLAHOMA
ARKANSAS
NEW MEXICO
LOUISIANA
REPUBLIC OF MEXICO
GULF OF MEXICO
MAP OF TEXAS
Nonmetropolitan Counties designated as high infant mortality areas
Nonmetropolitan counties designated as high migrant impact areas
Nonmetropolitan counties designated as high infant mortality and high migrant impact areas

Source: Regional Office of the U.S. Department of Health and Human Services, Dallas, Texas, June, 1980.

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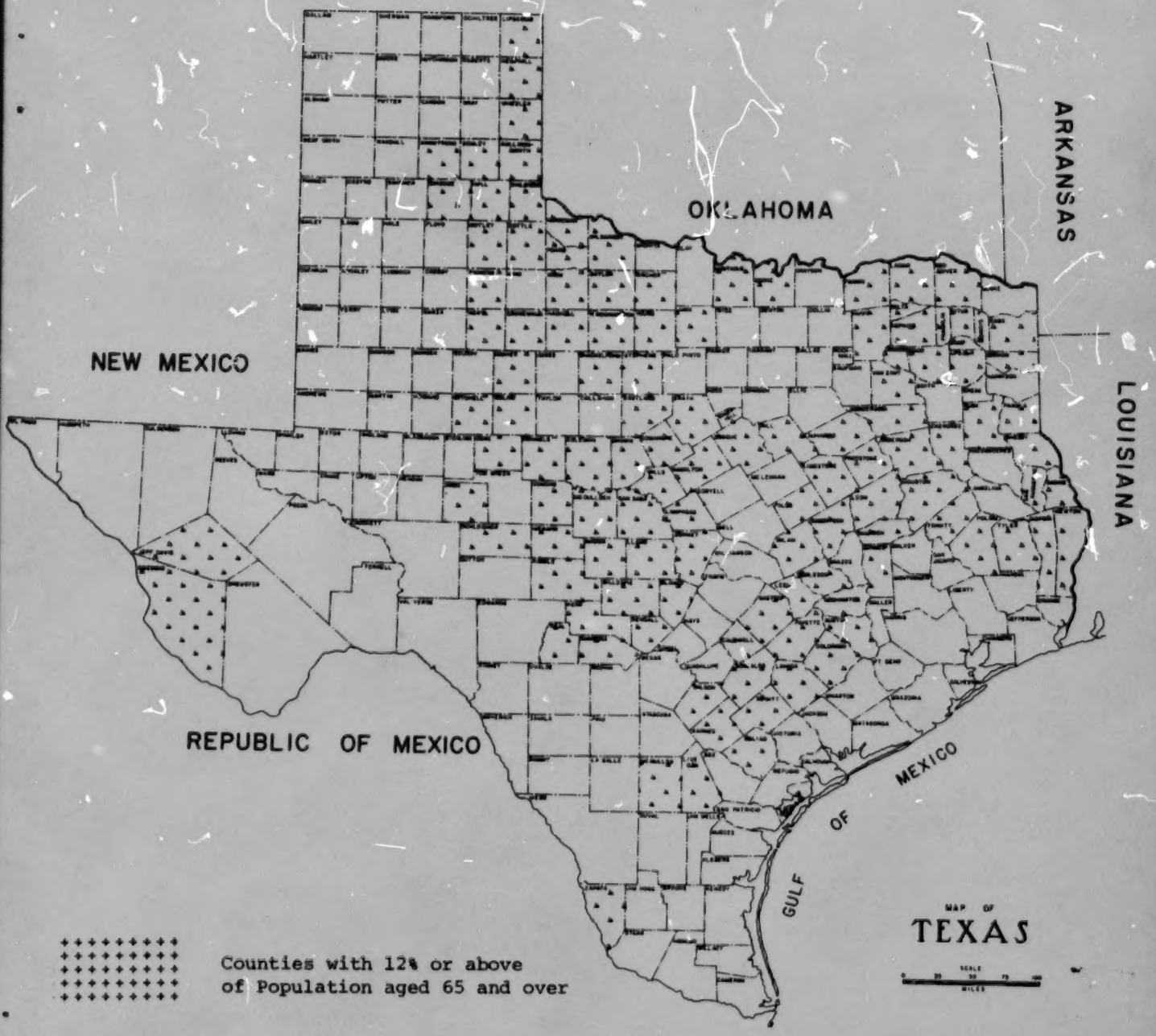
Map 3

Nonmetropolitan Counties in Texas with
High Percentages of Persons Aged 65 and Over



Source: Department of Community Affairs, Poverty in Texas, 1973, Austin, Texas, 1974.

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Poverty

There is a greater incidence of poverty in rural areas than in urban areas. Of Texas's rural population, 20.3 percent is categorized as below poverty level, compared to 13.4 percent of the urban population.[45]

The minority populations of non-metropolitan counties experience poverty more frequently and to a greater degree than their white counterparts. Of the blacks living in rural Texas, 54 percent are living below the poverty line; of the Mexican Americans, 50 percent are living below the poverty line. However, only 16 percent of white rural Texans are considered impoverished.[45]

The population of rural Texas comprises 28 percent of the state's total Medicaid recipients. The percent of Texans who are rural have a disproportionate number of people who are poor and of people who are dependent on public assistance.[50]

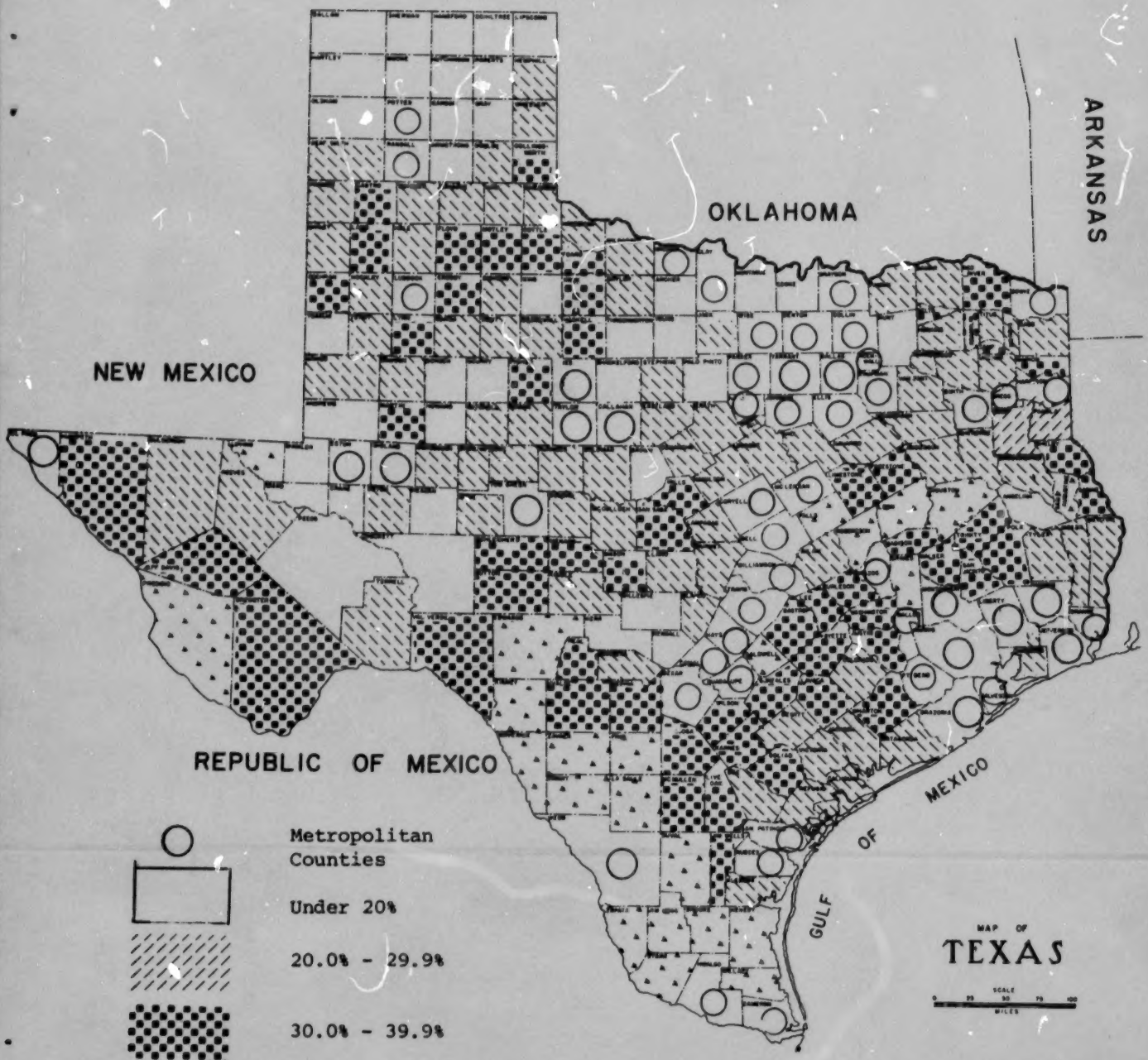
Map 4 illustrates the geographical distribution of poverty in Texas. Of the non-metropolitan medically underserved counties, 26 (14.8%) have an incidence of poverty between 20-29 percent, 54 (31%)have an incidence of poverty between 30-30 percent, and 20 (11.7%) have an incidence of poverty of 40 percent or above.[47,48]

Medically Underserved Criteria by County

Table 1 illustrates the criteria for medically underserved areas by county, being served by the federal health programs. The counties are listed in alphabetical order. After each county, the following information is presented: Infant Mortality Rate, Population to Physician Rates, Percent Poverty in County, and Percent of Population over 65 years of age. The ratios and rates must exceed federal standards for these counties to

Map 4

Incidence of Poverty in
Texas by Nonmetropolitan County



Source: Poverty in Texas, 1973, Texas Department of Community Affairs Austin, Texas, Texas, 1973, updated, 1977.

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TABLE 1: Statistics Representing Medically Underserved Area (MUA) Criteria for Counties Served by Rural Health Initiative (RHI) and Migrant Health (MH) Clinics in 1981.

COUNTY	1980 INFANT MORTALITY RATE[1]	1980 POPULATION TO PHYSICIAN RATIO[2]	1970 PERCENT POVERTY IN COUNTY[3]	1980 PERCENT POPULATION > 65	COUNTY	1980 INFANT MORTALITY RATE[1]	1980 POPULATION TO PHYSICIAN RATIO[2]	1970 PERCENT POVERTY IN COUNTY[3]	1980 PERCENT POPULATION > 65
Armstrong	*	997	9.3	19.3	Lamb	17.8	2,074	32.8	14.1
Atascosa	21.6	3,579	34.0	10.9	LaSalle	13.8	788	53.0	11.4
Bee	8.8	1,859	29.3	9.4	Leon	26.8	1,919	40.2	23.4
Blanco	*	1,170	25.6	19.2	Limestone	27.1	1,445	33.4	19.8
Bowie	15.3	**	17.7	13.0	Llano	12.0	1,449	21.6	29.2
Briscoe	21.7	2,579	22.8	16.8	Lynn	*	4,303	32.5	12.7
Caldwell	8.7	1,576	43.2	13.7	Maverick	3.6	2,854	50.8	6.4
Castro	26.4	5,278	30.1	7.1	Medina	20.4	3,861	30.6	12.1
Cochran	12.0	2,412	35.3	16.8	Mills	*	1,492	30.6	26.4
Comal	1.7	**	16.4	14.1	Motley	*	1,950	34.7	22.8
Comanche	12.0	2,102	25.6	23.7	Nueces	13.0	**	21.5	8.0
Crosby	13.1	2,215	31.9	13.7	Polk	10.5	4,068	32.4	16.1
Deaf Smith	20.9	3,528	23.3	8.2	Rains	*	**	24.5	16.2
Dimmit	18.4	3,789	61.7	8.9	Red River	10.5	3,220	36.0	19.7
Duval	17.6	3,129	49.0	13.3	San Jacinto	41.7	3,811	39.9	13.2
Floyd	9.9	4,917	30.6	14.4	San Patricio	18.4	**	32.6	8.4
Frio	6.8	3,446	43.5	9.6	San Saba	*	949	36.9	22.3
Garza	16.1	1,779	22.6	13.3	Smith	15.1	**	16.9	12.1
Gonzales	12.3	2,412	36.0	18.1	Starr	16.8	5,453	54.9	7.4
Guadalupe	14.9	**	22.1	11.6	Terry	9.1	2,430	23.9	10.6
Hale	14.1	1,446	25.5	10.9	Travis	9.2	**	16.6	7.1
Hall	34.9	1,399	23.3	20.7	Trinity	25.0	3,150	34.2	19.8
Hays	4.5	**	30.4	7.6	Upshur	10.8	7,149	24.9	13.7
Hockley	10.4	1,936	27.2	9.5	Val Verde	8.0	11,970	30.3	7.3
Hudspeth	*	2,728	33.2	7.4	Waller	10.0	**	28.5	9.8
Hunt	11.7	2,046	38.1	14.2	Wood	5.9	2,058	24.0	19.9
Jim Hogg	17.2	1,723	49.8	12.7	Yoakum	24.8	2,766	16.4	6.8
Kinney	*	**	60.7	15.2	Zapata	19.5	2,209	57.8	14.7
					Zavala	36.9	2,917	48.5	9.2

*Infant Mortality not computed for less than 20 live births.

**Data not available.

Sources: 1. Texas Vital Statistics 1980. Texas Department of Health, Austin, Texas, 1979.
2. Based on population figures from the U.S. Bureau of the Census, 1980 Census and on the number of primary care physicians given by Jim White, Texas Medical Association, 1980.
3. Poverty in Texas 1973. Texas Department of Community Affairs, Austin, Texas, 1974.
4. U.S. Department of Commerce, Bureau of the Census, Washington, D.C. April 1, 1974.

qualify as MUAs. All of the counties listed meet the criteria. The physician to population ratio is also used to determine designation of a county in terms of health manpower shortage.

Health Manpower Shortage Areas

Eighteen percent of all Texas counties are classified as Health Manpower Shortage Areas (HMSA) for primary medical manpower, representing 26.3 percent of the non-metropolitan medically underserved counties (Map 5). A comparison of the poverty distribution (Map 4), to the non-metropolitan medically underserved counties (Map 1) reveals the relationship between poverty and the lack of health manpower in rural Texas.

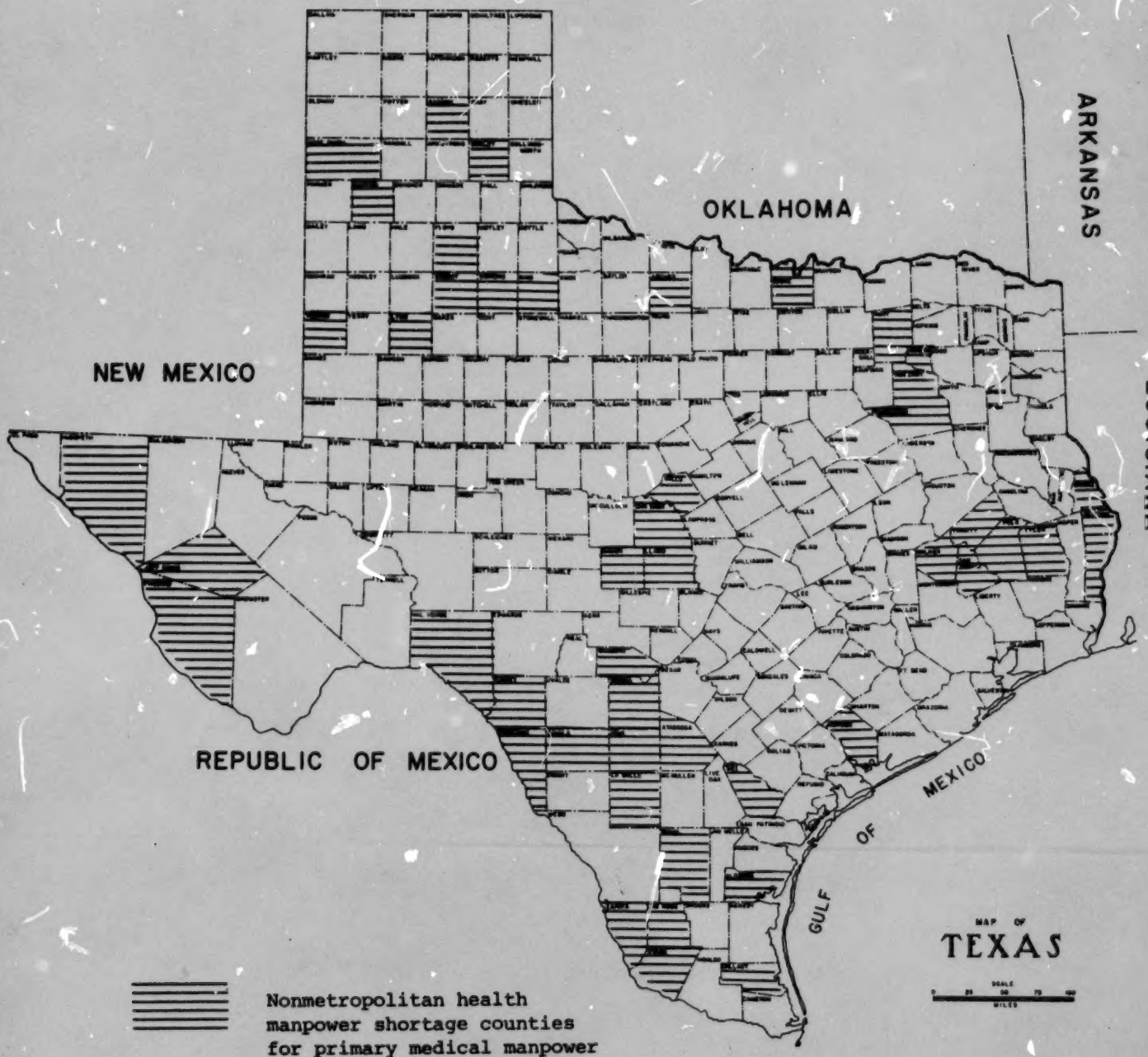
Migrant Impact Areas

In Texas, eighteen non-metropolitan counties have been designated as High Migrant Impact Areas. These counties have a concentration of migrant, seasonal and/or retired migrant workers and their families. (Map 2) High Migrant Impact Areas represent 10.5 percent of MUAs. Five of the 18 counties are not served by federally funded Migrant Health Clinics. However, several of the high Migrant Impact Areas do fall within the catchment areas for Rural Health Initiatives. Three counties, (Hale, Floyd, and Bee) carry the designation of both high infant mortality areas and high migrant impact areas.

The next section will focus on specific federal health programs which have affected the health status of rural Texans. A chronological description of four federal health programs follows a historical overview.

Map 5

Nonmetropolitan Counties in Texas
Designated as Health Manpower Shortage Areas
for Primary Medical Manpower



Source: Regional Office of the U.S. Department of Health and Human Services, Dallas, Texas, June, 1981.

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Federal Health Programs

In this section four specific federal health programs directed towards people in rural medically underserved areas of Texas will be examined. These are the Community Health Centers Program, Migrant Health Program, Rural Health Initiative Program and the National Health Service Corps. Each program's legislative history, purpose, rules and regulations, eligibility requirements, application process, services provided and target population will be addressed. The four programs are under the authority of the Public Health Service Act and are part of the Public Health Service in the Department of Health and Human Services. A brief overview of the history of the Public Health Service (PHS) will be presented first.

History of the Public Health Service

The Public Health Service, as we know it today, had its origin in several programs which through the years were consolidated and reorganized to form the Public Health Service. Federal involvement in public health began in the 1700s, when the U.S. was expanding its maritime trade. Sailors were found to be at greater risk than the general population for health hazards. Doctors and hospital personnel often denied health care to sailors because they were low paid transient individuals. It became apparent to members of Congress that action must be taken to assure access to health care for this group.[1]

The Marine Hospital Act was passed in 1798 to meet sailors needs while assuring the physicians proper payment for services rendered. Physicians at various seaports had contracts with the government to secure payment for the seamen who received medical treatment. This law served to reduce the problem of delinquent payment so often associated caring for seamen.[1]

During the next century, the Marine Hospital Service Act, under the administration of the Treasury Department, was amended to focus on the health problems most common to the seamen and to develop facilities for medical care along major seaways. Marine hospitals were erected at seaports as well as inland ports to increase accessibility to physicians. This program remained an entity directed towards serving the marine seamen for nearly one hundred years.[1,2]

By the end of the 1870s, the Marine Hospital Service was directing more energy towards the control of epidemics. This resulted in the first Port Quarantine Act, which allowed for the investigation of causes of epidemic diseases in order to minimize their spread and the control of the existing cases or those who might be potential carriers. As the mission of the Marine Hospital Service broadened, Congress in 1889 enacted the Public Health Service Commissioned Corps. The purpose of the Corps was to assign health personnel to areas of the country where public health problems required federal intervention.[2]

In 1890, concern about the health status of immigrants surfaced and Congress authorized the Marine Hospital Service to inspect the new arrivals to American shores. This action was directed towards screening the immigrants for mental illness and others unable to take care of themselves. Through time, this screening process broadened to include evaluating the immigrants for possible contagious diseases.[2]

During the same era, the Marine Hospital Service began directing attention towards research. In 1891, the Hygiene Laboratory was established. This program eventually evolved into the National Institutes of Health.[1]

In 1902, Congress renamed the Marine Hospital Service the Public Health and Marine Hospital Service. Within ten years, Congress again

renamed the organization the U.S. Public Health Service (PHS). As societal needs for public health became apparent, the Public Health Service was authorized through legislation to respond to those needs. For example, World War I focused attention on the need to prevent and control venereal disease. The war years also brought stresses to families which resulted in a dramatic increase in drug and alcohol abuse. To combat this, the Narcotics Division of the Public Health Service was created in 1929. Shortly thereafter, the Division of Mental Hygiene was created to help those identified as being mentally ill.[1,2]

The efforts of the Public Health Service to meet the needs of the public were represented by the agency's active development of relationships with the states to protect and advance all citizens health status. The war, the Depression and the increased usage of alcohol and drugs served as the impetus to foster relations between the PHS and the state health departments.[2]

The expansion of the services of PHS continued into the late 1930s. In 1939, President Roosevelt set out to consolidate the various federal programs which served public health concerns. Such programs as the Division of Quarantine , Division of Sanitary Reports and Statistics, the Division of Mental Hygiene, and the Division of Venereal Diseases, were all placed under the authority of the Surgeon General. Thus, the authority over the Public Health Service was transferred from the Treasury Department to the Federal Security Agency.[1,2]

Through the 1940s, PHS's interest in research continued. The Public Health Service established the National Cancer Institute, the National Institute of Mental Health and the National Heart Institute as research priorities in response to a mandate by Congress.[2]

Along with research as a major function of the Public Health Service, the post wars years brought a hospital construction period. The Congress established the National Hospital Survey and Construction Program, known as the Hill-Burton Act. This program assisted the PHS to become the nation's primary authority on hospital planning, design, research, and operation.[1]

During the 1950s the responsibility to provide health care to Alaska Natives and American Indians was transferred to the PHS from the Department of Interior. By the time of Eisenhower's Administration, the need to consolidate federal programs was again the issue. The agency administrating public health concerns was consolidated and placed under the authority of the Department of Health, Education, and Welfare (DHEW). The consolidation effort affected the various research programs placing them under the auspices of the National Institutes of Health.[1,3]

During Lyndon Johnson's Administration, the Secretary of the Department of Health, Education, and Welfare was authorized through an administrative decision to reorganize the Public Health Service. Later the President again called upon the Secretary of DHEW to reorganize the PHS. In doing so, the Secretary reduced the authority of the Surgeon General, transferred the Food and Drug Administration to the PHS, and created the Health Services and Mental Health Administration.[1,3]

The reorganization process continued through the late sixties and early seventies. Increasing public concern over environmental issues prompted the created of the Consumer Protection and Environmental Health Services. This agency was responsible for air pollution concerns, urban and industrial health, and radiological health activities. The agency was short-lived as the Johnson Administration gave way to the administration

of President Richard Nixon. The new Secretary for DHEW abolished the Consumer Protection and Environmental Health Services, replacing it with the Food and Drug Administration (FDA) and the Environmental Health Service. The new Environmental Health Service was later abolished, when President Nixon created an independent Environmental Protection Agency.[3]

At the same time the reorganization process was occurring, a number of programs authorized by legislation became the responsibility of the Public Health Service. In the early 1960s the Health Professions Educational Assistance Act of 1963 authorized federal grants to build health professional schools and a loan program for dental, medical and osteopathic students. The Nursing Training Act in 1964 provided aid for the rehabilitation and construction of nursing schools and aid for improvement of nursing school curricula. It also established a student nurse loan fund and extended the Public Health Service traineeship program begun in 1956.

Regional Medical Programs were created with the Heart Disease, Concern and Stroke Amendments of 1965. The National Health Service Corps came into being with the Emergency Health Personnel Act of 1970. In 1972, the Professional Standards Review Organization Act was passed to assure that health care to the public, financed by the government was of nigh quality. The Health Maintenance Organization Service was established administratively in 1971 and legislatively in 1973.[3]

By 1973, the broad plan for the Public Health Service had emerged with six primary categories of national health concerns. The agencies which were under the Secretary of Health's authority included:

1) the Center for Disease Control;

2) the Health Resources Administration;

3) the Health Services Administration;

4) the National Institutes of Health;

5) the Alcohol, Drug Abuse and Mental Health Administration, and

6) Food and Drug Administration.[1,3]

During the Carter Administration, the Department of Health, Education, and Welfare were combined into the new Department of Health and Human services, leaving the Department of Education as a separate entity.

A broad picture of the legislative and administrative evolvement of the Public Health Service has been presented. Its role within the Department of Health and Human Services is vast and includes concerns such as direct primary health care services, health and mental health research, the commissioned Corps and the National Institutes of Health. The next section will present selected federally funded health programs which impact those in medically underserved rural Texas. The Community Health Centers Program will be discussed first, followed by the Rural Health Initiative Program, then the Migrant Health Program and finally, the National Health Service Corps.

The Community Health Center Program

The concept of community health centers originated during the Johnson Administration as a project of the "War on Poverty." At that time, these centers were called Neighborhood Health Centers (NHC) and were administered by the Office of Economic Opportunity (OEO). Under OEO guidelines, the Neighborhood Health Centers provided a wide variety of services including: preventative care, screening and diagnosis, medical treatment, home health care, case finding, community outreach, rehabilitation, dental care, family planning, and mental health services.[5]

During the early 1970s, the Neighborhood Health Centers Program was transferred to the jurisdiction of the U.S. Department of Health,

Education, and Welfare (DHEW). With this transfer, the goals of the health centers changed. Funds for training personnel, environmental and other non-medical functions were eliminated. Family Health Centers (FHC) were created which emphasized the traditional medical approach to health care delivery. By 1975, Neighborhood Health Centers and Family Health Centers were part of DHEW's Community Health Centers Program.[5]

The major goals of the Community Health Centers Program provide for:

1) the development of health service delivery capacity, and
2) the support of ambulatory care projects in both rural and urban areas designated as medically underserved.[6,7]

The basic purposes of the Community Health Centers Program are found in Section 330 of the Public Health Service Act. These purposes are:

1) primary health service provision;
2) provision of supplemental health services necessary for the adequate of primary health services;
3) referral to providers of supplemental health services, and payments as appropriate and feasible for their provisions of such services;
4) provision of environmental health services, including the detection and alleviation of unhealthful conditions associated with water supply, sewage treatment, solid waste disposal, rodent and parasitic field sanitation, housing and other environmental factors related to health; and
5) provision of information on the availability and proper uses of health services.[6,7]

The current goals and purposes of the Community Health Centers Program have developed over the years. To understand their present status,

it is necessary to have a basic understanding of the conditions and laws which led to their creation.

Legislative History

In the early 1960's during U.S. Senate hearings, it was reported that the average life span of Americans was at an all time high. Citizens could expect to live to be 69.7 years of age. With this seven year increase in the life expectancy since 1940, there was in an increase in the number of citizens over 65 years of age. The health needs of the elderly generally fall in the category of chronic illnesses. During the 1960's, public health personnel did not have an effective and economically feasible tactic for addressing the health care needs of the elderly. In response to this problem, the Congress with President Kennedy's support, enacted the Community Health Services and Facilities Act (P.L. 87-395). Its purpose was to conduct studies, experiments, and to develop methods to improve health services to the chronically ill or aged persons. Though P.L. 87-395 was enacted to gain knowledge of the health needs and health management of the chronically ill or aged, the information gained through those studies gave impetus to the establishment of health facilities to serve the elderly and chronically ill.[7]

The creation of clinics to serve people with special health needs was authorized during the 89th Congress with the passage of the Community Health Services Extension Amendments of 1965 (P.L. 89-109). Along with the extension of P.L. 87-395, the Community Health Services Extension Amendments of 1965 also authorized grants for health care for children and the aged.[7]

During 1965, the Housing and Urban Development Act (P.L. 89-117) authorized federal grant assistance to local governmental bodies for the

construction of neighborhood health facilities needed to carry out programs for health, recreation, social or similar community services. The purpose of P.L. 89-117 was to assist communities in the construction of basic water and sewer facilities; to finance neighborhood health facilities (i.e. Neighborhood Health Centers) which served public health concerns, social welfare needs, recreational uses and other community concerns. P.L. 89-117 required that the funded building site could not be converted from its original purpose to another use for a period of 20 years. The conversion of a facility could be authorized only when the Secretary of Health, Education, and Welfare determined that the conversion to another use would be advantageous for the community.[4]

With the passage of P.L. 89-749, the Comprehensive HealthPlanning and Public Health Services Amendment of 1966, new and creative approaches to health care evolved. P.L. 89-749 added Section 314(e) to the Public Health Service Act. Section 314(e) allowed both public and non-profit groups to apply for grants to be used in the development of health service delivery and training programs. Under the authorization of the Office of Economic Opportunity, P.L. 89-749, Section 314(e), was implemented to provide the following grants:

1) Grants for Comprehensive Health Planning and Public Health Services. These grants were awarded to those who worked in conjunction with a state agency or health department in carrying out services directed toward the health needs of the population.
2) Project Grants for Area Wide Health Planning. These grants aided any public or non-profit agency in the development phases of creating a viable health facility.
3) Project Grants for Training, Studies, and Demonstrations. The purpose of these grants was to provide assistance to any private

or non-profit agency to cover the costs of training, studies, or demonstrations towards the development of improved comprehensive health care planning.

4) Grants for Comprehensive Health Services. These grants assisted states in maintaining comprehensive health clinics which were already in existence. The state health department was given the authority to disperse the funds.

5) Grants for Health Services Development. These grants allowed public or private non-profit agencies to meet the health needs of unique areas, such as those isolated due to geography or having special health needs.[9,10,11,25]

The Neighborhood Health Centers which emerged as a result of the enactment of the Comprehensive Health Planning and Public Health Services Amendment of 1966, numbered eight during the first year. The public health focus of the Neighborhood Health Centers Program was based on a prototype developed by OEO during a pilot study in 1965.[9,12]

Between 1970 and 1973, authority governing Neighborhood Health Centers was transferred, in stages, from the Office of Economic Opportunity to the Department of Health, Education and Welfare. This transfer and President Nixon's Health Message calling for the provision of health services to rural areas deemed medically underserved, caused the creation of Family Health Centers. The Family Health Centers were conceived as a way to provide comprehensive ambulatory health care to those who resided in medically underserved areas. These centers were first funded in fiscal year 1972 under Section 314(e) of the Public Health Service Act.[11,41]

The impact of Neighborhood Health Centers began to emerge. A 1973 study published in the New England Journal of Medicine showed a sixty percent drop in the occurrence of rheumatic fever, between 1960 and 1970,

within communities served by these centers. A decrease in the number of hospitalizations for illness among the individuals being served was also demonstrated, as well as a decrease in the number of days of actual hospitalization. Clients of these centers were hositalized at a rate twenty-four percent below that of the general population. Such effective results within the population served by both Neighborhood and Family Health Centers led to the creation of Section 330 of the Public Health Services Act in 1975. This created the Community Health Centers Program.[5,12]

Section 330 replaced Section 314(e) in 1975 and all the authority for Community Health Centers was consolidated within the Public Health Service Act. The intent was to develop Community Health Centers within medically underservedareas. Section 330, along with the Health Revenue Sharing Act of 1975, P.L. 94-63, gave authority to improve the existing programs, increase management efficiency and effectiveness, and secure third party payments and other collections for services provided.[19]

Then, President Nixon issued an executive directive stopping the development of any further Community Health Centers. His intent was to reduce the large comprehensive medical centers that served social welfare concerns in addition to health needs. It was the Administration's contention that government funded health programs should be patterned after private medical clinics. This began the era of de-emphasizing the Great Society trend which dominated health policy during the previous decade. Administrative fiat created the Rural Health Initiative Program (RHI). RHIs were established in accord with an executive order to stop the creation of Community Health Centers. In essence, RHIs were Community Health Centers in rural medically underserved areas. The Rural Health Initiative Program was expanded to include the Urban Health Initiative Program in 1977.[13,18]

Public Law 95-83 of the Public Health Service Act increased the level of funding authorized for the Community Health Centers Program for fiscal year 1978. This allowed the Rural Health Initiative and Urban Health Initiative Programs, as administrative programs under the Community Health Centers Program's legislation, to continue their expansion in medically underserved areas.[12]

Under the Health Services Amendments of 1978 (P.L. 95-626), the Centers were to provide environmental health services, and to develop on going referral relationships with one or more hospital. Community Health Centers were also allowed to retain earned income. It was hoped that the retained earned income would be used by the centers to defray costs of improvement to the physical plant as well as expand services.[14]

The status of Community Health Centers under section 330 of the Public Health Service Act was changed during the summer of 1981. Community Health Center funding was extended one year under the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35). This extension funds the CHCs under a categorical grant, at a 13 percent reduction in funding from $325 million to $284 million for fiscal year 1982.[15]

P.L. 97-35 also allows the states the option of applying for the Primary Care Block Grant. Under this block grant, the states can administer CHCs. If the states do not choose this option, the federal government will continue to administer the CHCs. In those states electing to apply for the funds, the state must provide matching funds of 20 percent in fiscal year 1983 and 33.3 percent in fiscal year 1984.[15]

The major provisions of the Primary Care Block Grant under P.L. 97-35 are:

1) The Secretary of DHHS may grant each state a sum not to exceed $150,000, to cover state assumed administrative costs.

2) States which do not apply for administrative grants for CHCs will remain under the administration of the regional DHHS.

3) States are mandated to use the entire federal grant; and for FY 1983 and FY 1984, the states must utilize in totality the matching funds.[15,53]

The shift in the philosophical approach to Community Health Centers over the last two decades is reflected in the legislative history of the Community Health Centers Program. Currently CHCs are authorized and funded through categorical grants. Block grant funding for CHCs will provide a new direction in terms of government involvement in public health concerns. There has been a reduction in funding for CHC, causing budgetary problems which may result in decreased services and/or a reduction in numbers of existing programs. The next section addresses the rules and regulations governing CHCs.

Rules and and Regulations

The final rules and regulations governing Community Health Centers were published in the Federal Register in late 1977. Currently, Community Health Centers operate under these rules and regulations in conjunction with proposed rules and regulations issued in late 1980. The proposed regulations have not been finalized. Though no official directive has been ordered for the use of the 1980 rules and regulations, the Regional Office of DHHS in Dallas has indicated that administrative decisions are made in cases of conflict between the official rules and regulations and the newer proposed rules and regulations.[16,17,18]

In the July 6, 1982, Federal Register, the rules and regulations for implementing P.L. 97-35 are set forth. At this time, the states are allowed to make application for planning grants to prepare for the shift in

authority governing CHCs from the federal government to those states whose applications demonstrate the ability to administer the Community Health Centers under the Primary Care Block Grant in 1983.[15,53]

Eligibility

Any public or non-profit entity may apply for a grant under Section 330 of the Public Health Service Act. An applicant must be in an area designated by the Department of Health and Human Services (DHHS)* as medically underserved. By definition, a medically underserved area "means the population of an urban or rural area has been designated by the Secretary as an area with a shortage of personal health services or a particular population group...having a shortage of these services."[17] Indicators which serve as criteria for classifying an area as a MUA are:

1) unusual local conditions which create barriers to the viability and the accessibility of personal health services;
2) availability of health resources in relation to the size of the area and its population, including appropriate ratios of primary care physicians in general or family practice, internal medicine, pediatrics, or obstetrics and gynecology to the population;
3) health indices for the population of an area such as the infant mortality rates;
4) economic factors affecting the population's access to health services, such as percentage of the population with income below the poverty level; and

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*The Department of Health, Education and Welfare became the Department of Health and Human Services in 1980.

5) demographic factors affecting the population's needs and demand for health services, such as the percentage of the population aged 65 and over.[17]

The applications are ranked by degree of medical underservice into one of four quartiles. The lower two quartile scores identify that the applicant is in a priority rank for consideration for a grant award. The ranking by quartile is determined at the Regional Office of DHHS.

Application Process

There are six categories of CHC grants identified in Section 330. They are:

1) grants for planning and developing Community Health Centers;
2) grants for operating Community Health Centers;
3) grants for operating Community Health Projects;
4) grants to Community Health Centers for planning and developing the provisions of services on a prepared basis;
5) grants for technical assistance; and
6) grants for the acquisition and modernization of existing buildings.[7]

The difference between Community Health Centers and Community Health Projects is related to the establishment of a governing board. CHCs must have a governing board upon commencement of the center's operation. A Community Health Project is required to have a governing board by the end of the operation grant period.[16]

Each applicant must clarify the specific intent for which the grant is to be used. The applicant must submit a statement of objectives and the methods by which these objectives will be evaluated. A narrative describing the proposed use of the grant money should be included . The

narrative must comply with the regulations governing the type of grant being sought, for example, a planning and development grant or an operational grant.[16]

The catchment area is to be fully described in terms of the population to be served, the actual physical boundaries of the area and the identification of the characteristics which render the area medically underserved. A needs assessment of the proposed population is required. The assessment must describe demographic data, health indices such as infant mortality, economic conditions and availability of health care personnel. Based on the needs assessment, the applicant should discuss health services planned to meet this population's health needs. The health services must be in accordance with the required services stipulated in Section 330 of the Public Health Service Act.[16]

Based on the needs assessment for the proposed catchment population, a list of all services projected to be provided at the Community Health Center must be included. Each service identified must be designated as either a service provided at the project site by the staff with resources at the center or a contractural service provided by another agency. The contractural documents, if available, are to be included within the application along with the schedule for fees and the schedule of discounts for services provided at theprospective Community Health Center.[16]

The applicant is required to provide a description of key personnel outlining their relationship to the project's objectives. Justification for the various personnel must be of adequate depth that the Regional Office can assess the importance of the specific personnel to the project.[16]

Each application should contain a budget justifying the anticipated expenses for the proposed project. The applicant needs to indicate what

efforts will be made to secure financial and professional assistance and support for the project within the proposed catchment area.[16]

Criteria for Awarding Funds

The application process is tightly interwoven with the criteria determining eligibility for grant awards. To be considered for funding, the prospective project grantee must provide information regarding the population, the surrounding area, and various health concerns present within the catchment area.[16]

The general criteria for approving an application are consistent with the rules and regulations governing applications. All applicants must meet the basic criteria for any grant as well as the specific criteria for the particular type of grant.[16]

The Secretary of the Department of Health and Human Services or his representative at the regional level will determine if an applicant is to be funded by assessing the following categories of information provided by the applicant:

1) the extent to which the applicant provides the following;
   a) data representing the needs assessment,
   b) the plan for implementing the project,
   c) the identification of efforts to acquire community support (financially and/or professional),
   d) a description of the maximum use of other state and federal resources, and
   e) the standards and qualifications of personnel.
2) the identification of the relative needs of the population for such services;

3) the extent the applicant justifies administrative and management capabilities;

4) the extent the applicant indicates a potential for developing new and effective methods for health service delivery and management;

5) a fiscal plan for assuring effective use of grant funds and maximizing non-grant revenue;

6) the identification of community resources projected for utilization;

7) a proposed catchment area which is exclusive of a pre-existing Community Health Center;

8) a project site which is located in an area accessible to the target population; and

9) the incorporation of other federally funded programs with those of the proposed site.[7,19]

The review of the above information occurs at the regional level. If an area fails to express the need for a Community Health Center adequately it is possible that the application will be denied though an area may be eligible.

Services

Section 330 of the Public Health Service Act describes five categories of services, either required or supplemental, which will be provided at each Community Health Center. The first being Primary Health Services which are the services of physicians and where feasible, services of physican's assistants and nurse clinicians. The services identified as primary health include:

1) diagnostic, laboratory, and radiologic services;

2) preventative health services, including children's eye and ear examinations, prenatal services, well child services and family planning services;

3) emergency medical services;

4) transportation services as required for adequate patient care;

5) preventive dental services, and

6) pharmaceutical services, as deemed appropriate for individual centers.[7]

The second category of services is Supplemental Health Services. Supplemental Health Services include:

1) hospital services;

2) home health services;

3) extended care facility services;

4) rehabilitative services (including physical therapy) and long-term physical medicine, mental health services, dental services, vision services, allied health services, therapeutic radiologic services, health education services (including nutrition education); and

5) services which promote and facilitate optimal use of primary health services.[7]

The third category identified is Environmental Health Services. The primary services of environmental health include the detection and alleviation of unhealthful conditions associated with water supply, sewage treatment, solid waste disposal, rodent and parasitic infestations, field sanitation, housing, and other environmental factors related to health.[7]

The fourth category of services is referral to providers of supplemental health services and payment for the provision of such services. Category five is the provision of information on the availability and

proper use of health services for all residents within the catchment area. These five categories of services are directed toward a target population.[7]

Target Population

The Community Health Centers Program directs its attention to serving those citizens living within a medically underserved area or a health manpower shortage area for primary health care. Any U.S. citizen is eligible to receive services.[18]

Historically, the client population was limited to the poor, aged, and those who were at high risk for certain illness conditions. This action has been overruled by a Supreme Court decision stating that federally funded programs cannot discriminate against the general citizens who fall outside the eligibility criteria.[18] However, the vast majority of those who do utilize the Centers are those who are in need of a federally supported program. CHCs can serve either rural or urban populations. The next section will elaborate on the Rural Health Initiative Program as a component of the Community Health Centers Program.

Rural Health Initiative Program

Rural Health Initiatives are:

> A Public Health Service effort to integrate a number of federal health programs to improve the delivery of health care to rural residents. The RHIs purpose is to improve accessibility, availability, and quality of primary health care services in rural areas that have been identified as having critical health manpower shortage areas or as being medically underserved.[20]

The goals of the Rural Health Initiative Program are:

1) to increase the provision of primary health care services to rural medically underserved areas;

2) to identify and make maximum use of existing health care resources by using new approaches and concepts directed at combining, coordinating and strengthening health services delivery resources and activities through establishment of linkage among primary, secondary and tertiary care;

3) to emphasize effective project management, higher provider productivity and movement toward economic viability;

4) to develop mechanisms to provide better health care to the Medicaid eligible population by integrating the Medicaid eligible population into a single rural health care delivery system;

5) to attract and use non-physician providers wherever possible to extend the capacity of physician providers;

6) to integrate primary care services into a complete system of health care delivery that is financially viable, professionally attractive and able to become self-sustaining; and

7) to emphasize programs of prevention and health education to gain full utility from the medical resources available to rural areas.[21]

The Rural Health Initiative has developed as a flexible program which coordinates other federal health programs within its framework. These programs include; the National Health Service Corps, the Community Center Program, the Migrant Health Program, and the Appalachian Health Program. As a result of this coordination effort, the Rural Health Initiative Program receives funding from sources other than those solely designated for Community Health Centers. One purpose of this coordinated effort among federal health programs is preservation of funding for the RHIs should any administration attempt to decrease or eliminate funding for this program.[40]

The RHI Program has an administrative, rather than, a legislative history. This administrative history will be presented followed by discussions on program rules and regulations, eligibility requirements, application process, criteria for awarding funds, services provided, and target populations.

Administrative History

The Rural Initiative (RHI) emerged as an administrative effort during the Nixon era. Nixon had advised the Director of the Community Health Centers Program to discontinue authorizing funding for new Community Health Centers. In order to circumvent this Directive from the President, an administrative decision was made to establish the Rural Health Initiative Program. The purpose of this move was to provide primary health care to individuals living in rural medically underserved areas of the U.S. while maintaining the Community Health Center Program.[13]

In late 1974 and early 1975, the first three Rural Health Initiatives were established in DHEW Region VI, all three were located in Texas. All RHIs provide direct primary care, with access to secondary and tertiary care for clients as deemed necessary by the health care providers.[18]

Rural areas are defined by DHHS as: those areas which are not Standard Metropolitan Statistical Areas[a] (non-SMSA's); or those areas within

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[a]Standard Metropolitan Statistical Area: a census category that includes one or more contiguous counties containing at least one city of 50,000 inhabitants or more. Additional counties who meet certain criteria of metropolitan character and social economic integration with a central city may also be included in the SMSA.

Standard Metropolitan Statistical Areas (SMSA) that are thirty minutes or more driving time from urbanized areas[b] ; or unincorporated places[c] or cities having 25,000 or more inhabitants.[18]

All Community Health Centers are currently designated as Rural Health Initiatives or Urban Health Initiatives. Because of the nature of the definition outlining what is rural and what is urban, clinics can change designation as the population increases or decreases within a catchment area. For example, Su Clinica Familiar in southern Texas is a well established Community Health Center which has served rural populations since its inception. Recently, the area served by Su Clinica Familiar was designated as a Standard Metropolitan Statistical Area, thus Su Clinica Familiar is now designated as an Urban Health Initiative.[18]

The Rural Health Initiative was conceived as an attempt to bring balance to the federal effort to serve people with inadequate access to primary health care delivery. Studies revealed that people residing within urban areas had greater access to federally funded health programs. A 1974 DHEW report demonstrated that rural areas received only 22 percent of the available health centers funding. This allocation was not adequate to meet the needs of the rural population.[22]

Under Section 330 of the Public Health Service Act, each region of DHHS is required to divide its funding between rural and urban Community Health Centers. No more than 60 percent of all funds can be authorized for either UHIs or RHIs. Likewise, no less than 40 percent of all funds can be granted to the remaining initiatives, be they rural or urban. For

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[b]Urbanized Area: a central city or cities and surrounding closely settled areas.

[c]Unincorporated Places: closely settled population centers without corporate limits having 25,000 inhabitants or more.18

example, a region can grant 55 percent of its funds to RHIs. This means that 45 percent must be allocated to UHIs. Public Law 97-35, the Omnibus Budget Reconciliation Act of 1981, does not address the 60/40 split of grant monies between Rural Health Initiatives and Urban Health Initiatives.[7,18]

Rules and Regulations

The rules and regulations which govern the Rural Health Initiatives were published in the Federal Register on November 25, 1977. As the Rural Health Initiative is an administrative program under Section 330, Community Health Centers, of the Public Health Services Act, the rules and regulations are the same for both RHIs and CHCs. Two sets of rules and regulations currently exist. One set being the official set, was established in 1977, while the revised set was proposed in 1980. The second set of rules and regulations has not become final rules.[16,17] The July 6, 1982, Federal Register describes the application process to be used by the states if they wish to assume administrative responsibility of RHIs under the Primary Care Block Grant.[16,53]

Eligibility

In order for the applicant to meet eligibility requirements for a grant to establish a RHI in a designated area, the applicant, must meet the criteria outlined for a Community Health Center grant and the criterion that the area is rural. As with CHCs, any public or private nonprofit organization may make application.[16]

Application Process

The current procedure for applying for an RHI is the same as that outlined in the section discussing Community Health Centers. To reiterate, when being considered for Section 330, Community Health Center funds, all applicants are to provide the following information: a budget and a narrative justifying expenditures; a description of the catchment area, including boundaries, projected population served and a needs assessment of the population; accessibility to health providers; health indicators, such as infant mortality rate, poverty level, number of aged and number of primary care physicians in areas per population; identification of what services are to be provided and who will provide such services; and availability of supplemental resources in the catchment area.[16]

Criteria for Awarding Funds

As discussed in the section on Community Health Centers, there are six categories of grant applications. The determination of who is awarded grant monies for Rural Health Initiatives is dependent upon the thoroughness of the application and how well the application meets the criteria set forth in the regulations governing eligibility.[21]

Services Provided

The services provided by Rural Health Initiatives are identical to those required in Section 330, Community Health Centers, of the Public Health Services Act. Each RHI is required to provide primary health services by a physician when feasible and/or a nurse clinician or a physician's assistant. Such primary services include diagnostic services such

as laboratory; radiological services; preventive services, such as immunizations and children's eye and ear examinations; family planning; emergency services; transportation as required for adequate patient care; and preventive dental care and pharmaceutical services, as deemed appropriate. Along with the primary care services, a clinic is required to provide access to supplemental health services. Under the category of supplemental health services are hospital services, home health services, extended care facility services, rehabilitative health services, mental health services, vision services, allied health services and health education services. Any supplemental services not available at the clinic must be made accessible to clients. This requires the staff of the clinic to locate organizations to whom referral can be made for the provision of services not delivered by the client staff.[7]

Target Population

The Rural Health Initiative Program serves people living in Health Manpower Shortage Areas (HMSA). The criteria for designation as a Health Manpower Shortage Area are similar to those for designation as a medically underserved area. The criteria are:

1) low physician to population ratio;
2) higher than average infant mortality rate;
3) high ratio of number of births per 1000 population;
4) significant population of women in child bearing years (14 to 44 years of age); and
5) a significant percent of the population with an income below the poverty level.[42]

An area must be designated as medically underserved and as having a health manpower shortage in order to qualify for a RHI grant. The people

who are served by RHIs are those who have minimal access to health manpower, particularly primary health care providers. By law, anyone residing within a catchment area is eligible to receive health care through the RHI, through the target groups are the poor, the elderly, women in childbearing years and high risk infants.[18] The migrant health program is an integral part of the Rural Health Initiative Program.

Migrant Health Program

The purpose of the Migrant Health Program is to provide primary health care to migratory agricultural and seasonal agricultural workers and their families. The migrant health clinic is to be located in a high migrant impact area, defined as an area with a significant number of migrant/seasonal families who reside there for at least two months per year. Those eligible to use the migrant health clinic include migrant agricultural workers, seasonal agricultural workers, their families and retired migrant and seasonal workers. Studies leading to the enactment of Section 329, Migrant Health, of the Public Health Service Act, revealed that the migrant population did not have access to primary health care.[24]

The purposes of the Migrant Health Program are to provide:

1) primary health services;
2) supplemental health services necessary for the adequate support of primary health services;
3) referral to providers of supplemental health services and payments, as appropriate and feasible, for their service provided;
4) environmental health services, including, as may be appropriate, for the particular center (as determined by the center) the detection and alleviation of unhealthful conditions associated with water supply, sewage treatment, solid waste disposal, rodent and

parasite infestation, field sanitation, housing and other environmental factors related to health;

5) infectious and parasitic disease screening and control;

6) accident prevention programs, including prevention of excessive pesticide exposure; and

7) information on the availability and proper use of health services, information on other services which promote and facilitate optimal use of health services and personnel who speak the language of the population served.[25]

The legislative history of the Migrant Health Program will be discussed first. This will be followed by information on the Migrant Health Program's rules and regulations, eligibility criteria, application process, criteria for awarding funds, services provided and target population.

Legislative History

During the early 1960s, attention was drawn to the fact that migrant workers and their families had less access to health services than other members of society. Preventive health measures, such as immunization and obstetrical care, were found to be generally inaccessible to this group of people. An example of the lack of preventative health care occurred among the migrant population of Plainview, Texas when an epidemic of diphtheria struck during the winter months of 1960. This epidemic could have been prevented with immunization.[24]

Other health problems were identified by the U.S. Senate Subcommittee on Migratory Labor in 1961. These problems included a high incidence of positive tuberculin tests in migrants over the age of 15 years, acute diarrheal diseases, lack of safe drinking water, and high infant mortality

rates. Because of substandard housing conditions and transitory lifestyle, it was found that migrant families succumbed to illnesses and accidents at a greater rate than the general population.[24]

In September of 1962, Congress enacted Public Law 87-692, the Agricultural Migratory Workers-Health Service Act. P.L. 87-692 was directed toward providing preventive care, immunizations, and improvement of environmental sanitation for migrant workers and their families. Two pilot projects had been initiated to determine the workability of the proposed migrant health clinics. As each project was found to serve the purpose of meeting the primary health care needs of migrant workers, the impetus to pass this legislation was strong.[27] P.L. 87-692, provided for the establishment and operation of family health services, special health projects, and the training of personnel to develop and operate migrant clinics. The intent of this law was to improve health conditions of migratory workers and their families.[26,27]

The Agricultural Migratory Workers-Health Services Act (P.L. 87-692) required the establishment of a local governing board for each project with migrant workers in the majority. The purpose of the board of governors was to assure community input into the policies of the health center.[26]

Three years later in 1965, hearings were conducted by the U.S. Senate Committee on Labor and Public Welfare to assess the quality of the Migrant Health Program. As migratory workers and their families do not reside in a locale long enough to establish residence requirements, the problems associated with hospitalization costs and emergency room services were addressed at the federal hearings. Public Law 89-109 was passed and expanded the services of the Migrant Health Program to include necessary hospital care.[28]

The Public Health Service Amendments of 1968, P.L. 90-574, further extended the authorization of grants for health services to migrant workers. The new services included those of specialized facilities for alcoholics and narcotic addicts. By 1968, 36 states and Puerto Rico were serving migrant families. However, funding for the migrant clinics remained inadequate to meet the needs for health services.[29]

In 1970, Public Law 91-209, an amendment to the Agricultural-Migratory Workers HeaLth Service Act, changed the Agricultural Migratory Workers Health Service Act and Section 310 of the Public Health Service Act to include other seasonal agricultural workers. It was recognized that migrant and seasonal farmworkers often worked together and resided within the same community. The workers' status as either migrant or seasonal worker could shift back and forth. The workers' legal residency status remained a problem which interfered with migrants and seasonal workers and their families' ability to qualify for other federal aid, such as Medicaid. The need to establish access to health care along the path of migration was identified. Congress acknowledged the importance of the continuance of the Agriculture-Migratory Worker Health Service Act. The Act authorized direct physician encounters and active outreach services conducted by nurses who provided home service to the migrants and their families. Counseling, referrals and post-treatment follow-ups were also part of the new actions incorporated into the Migrant Health Program.[30]

In 1977, the Health Revenue Sharing and Health Act (P.L. 94-63) extended authorization for the Migrant Health Program. This law was passed by Congress after being vetoed twice by the President. The Health Programs Extension Act of 1977 (P.L. 93-45) and the Public Health Service Act (P.L. 95-83), along with P.L. 94-63, extended migrant health services. The

new extensions to the Migrant Health Program required that the recommendations made in 1962, become part of Section 329 of the Public Health Service Act. Those recommendations included:

1)an advisory council for clinic sites;

2) community involvement;

3) the use of nurse providers;

4) regulations be promulgated (not officially final as of February 1982); and

5) continuation of Migrant Health Services.[12,31,32]

The unmet health care needs of migrants were still viewed by Congress as critical in 1978. It was found that only nineteen percent of the migrant population was eligible for services. The health indicators such as infant mortality rate, incidences of tuberculosis, accident rate, and the number of births occurring outside of the hospital were higher than for the population at large.[12]

Specific barriers and obstacles for improvement and maintenance of the health of migrants included problems associated with hospitalization, migrant camp sanitation, and Medicaid coverage. In general, Medicaid recipients must be state residents who are blind, aged, disabled or members of non-male headed families with dependent children. Migrant workers generally do not meet the criteria for domicile and categorical requirements. This resulted in the individual health center receiving limited third party payments.[12]

Migrant Health Services were extended with the enactment of the Health Services and Centers Amendments of 1978, P.L. 95-626, as a result of these concerns. Eligibility was broadened to include aged and disabled persons and their families who were former migrant workers.[12]

P.L. 97-35, the Omnibus Budget Reconciliation Act of 1981, extended the Migrant Health Program as a categorical grant program through fiscal year 1984. In fiscal year 1981, $43.3 million has been designated to be granted to the clinics. The following section will present the current rules and regulations governing Migrant Health Projects.[15]

Rules and Regulations

The rules and regulations governing the operation of the Migrant Health Program appeared in the November 25, 1977, Federal Register. The rules and regulations define the population to be served, criteria for determining eligibility, the types of population to be served, criteria for determining eligibility, the types of population to be served, the types of services, the types of services Migrant Health Clinics to be provided, how application is to be made, and the types of grants available for application.[16]

To date, regulations for the implementation of the 1978 Amendments to the Public Health Services Act, P.L. 95-626, have not been issued by the Secretary. The only major 1978 amendment currently enforced is the change from 6,000 to 4,000 persons for the definition of a high migrant impact area.[18]

Eligibility

Any public or non-profit private entity is eligible to apply for a migrant health grant. To be considered for a grant, the applicant must demonstrate the number of migrant/seasonal workers and their families residing within the proposed catchment area based upon figures from the last calendar year. The migrant/seasonal population must reside in the catchment area for a minimum period of two months. The catchment area

proposed by the applicant is to be a high impact area. By definition, a high impact area is:

> a catchment area which has not less than 6,000 migratory agricultural workers, seasonal agricultural workers, and members of the families of such workers residing within its boundaries for more than two months in the most recent calendar year for which statistical data acceptable to the Secretary is available.[16]

It should be noted that the figure of 6,000 migrant workers is not consistent with the figure of 4,000 identified in Section 329 of the Public Health Service Act. Health indices such as infant mortality rate are to be provided, economic factors, number of available health resources, be it manpower or existing facilities, are to be outlined.[16]

Application Process

There are six categories of grants, they are grants for:

1) planning and developing Migrant Health Centers;
2) operating Migrant Health Centers;
3) operating Migrant Health Entities;
4) planning and developing Migrant Health Programs;
5) operating Migrant Health Programs; and
6) technical assistance.[16]

Each applicant, regardless of the type of grant being sought, must provide a budget, a narrative describing how the funds will be used, a statement of specific and measurable objectives and the method by which these objectives will be evaluated. The catchment area, its boundaries, its accessibility to migrant/seasonal workers and their families, should be provided. The rules and regulations governing application for Migrant Health Center grants specify that the boundaries conform as much as possible with those relevant to the area, such as political districts, school districts, etc. The number of migrant/seasonal workers and their families

in the projected area based on statistics from the previous year should be stated. The applicant must provide information as to how long the migrant/seasonal population spends in the catchment area.[16]

A needs assessment of the population to be served delineates factors demonstrating the importance of establishing a clinic within the catchment area. The ratio of primary care physicians to the target population should be included within this assessment. Health indices, demographic data, economic data, and language and culture factors must be presented in the needs assessment.[16]

The applicant provides descriptions of the personnel needed to operate a migrant health care facility. The description must include the title of the positions, a brief description of the responsibilities, and the rationale for the positions in relationship to the objectives of the project.[16]

The applicant must identify services to be provided by the clinic and indicate if the services are to be provided by the staff, contractual personnel or other state and/or federal resources. Along with the services provided, a proposed fees schedule should be included. Finally, the applicant must conform to all requirements set forth in Section 329 of the Public Health Service Act governing a clinical facility for migratory agricultural and seasonal workers and their families.[16]

Criteria for Awarding Funds

Funding decisions are based on the degree to which the information presented in the application indicates a health need for the target population. Certain factors receive high priority. The highest priority is given to qualified applicants who have at least 6,000 migrant/seasonal workers and their families residing within their catchment area. Second

priority is given to those applicants who propose to serve between 1,000 and 6,000 migrant workers and their families. Those applicants who meet the requirements and intend to serve less than 1,000 migrant workers and their families, receive third priority. Fourth priority for approval are those applicants who have indicated that the migrant population resides two months or less within the catchment area. The fifth priority for approval are those applicants who have met the other criteria but have no migrant workers or their families residing within the catchment area. These applicants must have at least 6,000 seasonal workers and their families residing within the catchment area. Finally, the lowest priority of approved applicants are those whose catchment areas consist solely of seasonal workers and their families and number less than 6,000. Feasibility, accessibility, health indices and administrative competence are key factors which should be addressed by each applicant.[16]

Services Provided

All Migrant Health Clinics must provide primary health services. The services in this category include:

1) services provided by a physician when feasible or by a physician's assistant or nurse practitioner;
2) diagnostic services such as laboratory and radiography;
3) preventive health services, children's eye and ear examination, well child services, including immunizations, prenatal services, and family planning services;
4) emergency services;
5) transportation services as required for adequate patient care;
6) preventive dental services; and
7) pharmaceutical services.[25]

A grantee is also responsible for the provision of supplemental and environmental health services, home health care, extended care facility services, rehabilitative services and long-term physical medicine, mental health services, dental services, vision services, allied health services, therapeutic radiologic services, public health services, ambulatory surgical services, and health education services. Environmental health services include detection and alleviation of unhealthful conditions associated with water, sewage treatment, solid waste disposal, rodent and parasitic infestation, field sanitation, housing, and other environmental factors related to health. Screening for infectious and parasitic diseases are to be included with the other services as deemed appropriate for a given population.[25]

If the population has a significant number of non-English speaking clients, it is the health center's responsibility to provide services in the language of the people being served. Other services as appropriate are to be offered to the patients or to be made available. These would include accident prevention and prevention of excessive pesticide exposure programs.[25]

Target Population

The target population served by migrant health facilities include those individuals who meet the following criteria:

1) Migratory Agricultural Worker: an individual whose principal employment is in agriculture on a seasonal basis, who has been so employed within the last 24 months, and who establishes for the purpose of such employment, a temporary place of abode;

2) Seasonal Agricultural Worker: an individual whose principal employment is in agriculture on a seasonal basis and who is not a migratory agricultural worker;

3) family members of the above two categories; and

4) retired migratory/seasonal workers.[25,16]

Health care personnel for migrant health clinics are usually provided through the National Health Service Corps.

National Health Service Corps Program

The National Health Service Corps (NHSC) was established under the Emergency Health Personnel Act of 1970 (P.L. 91-623). The purpose of this Act was to authorize the assignment of commissioned offices of the Public Health Service to areas defined as having a critical medical manpower shortage and to encourage health professionals to practice in areas where shortages of these personnel existed.[33]

The general objectives of the National Health Service Corps are:

1) to identify areas that have critical shortages of health manpower;

2) to place health professionals in these areas; and

3) to provide assistance to communities in developing a self-supported health care system.[34]

According to Mullan, the NHSC is currently the nation's largest employer of physicians whose exclusive clinical mission is to care for the medically underserved. Nearly 1,000 physicians are in service to medically underserved populations.[35]

The NHSC and communities work together. The federal government assumes the responsibility for providing the health manpower and the community assumes the responsibility for providing adequate clinical

facilities. The types of health care personnel in the Corps include: physicians, nurses, nurse practitioners, physician's assistants, dentists, pharmacists, nurse midwives and allied health practitioners.[21]

The National Health Service Corps legislative history will be presented. Material describing NHSC rules and regulations, application process, services provided, criteria for assigning personnel, and target population will be addressed.

Legislative History

During the early 1970s, attention was directed towards the severe medical manpower shortage in certain areas of our country. The areas were inner city ghettos, rural areas, Indian reservations, and any other area which was inhabited by poor, minorities and/or migrating populations. Middle class communities and upper class communities had adequate access to health care providers. According to the American Medical Association, in terms of physicians per persons in the U.S., there was no shortage. But the distribution of these physicians was not congruent with the population distribution.[40]

Dr. Abe Bergman, a practicing physician in the State of Washington, was well aware of the physician maldistribution problem. Bergman conceived the idea of establishing a federal program to employ physicians for medically underserved areas. Through his contact with Senator Magnuson (D-Washington) Bergman began his quest for the creation of a federal program to meet the health needs of poor Americans. During that era, physicians who were employed by the Public Health Service were not authorized to provide primary care services. Thus, the impetus towards the National Health Service Corps began.[36]

Congressional hearings revealed that there was indeed a shortage of medical manpower throughout the nation in areas such as rural communities and the inner city. A trend among physicians from 1950 to the mid-1960s reflected a transition from general practice to specialization. The majority of these specialists were practicing in urban areas. This reduction in the number of physicians was felt in rural areas. These facts served as a reason for the passage of the Health Personnel Act, P.L. 91-623 in 1970.[33,36]

The purpose of P.L. 91-623 was to "improve the delivery of health services to persons living in communities and areas of the United States where health personnel and services are inadequate to meet the health needs of the residents of such communities and areas."[33] This law authorized the assignment of federal health care providers to be assigned to areas designated as needing health care manpower. These health care providers were to work in conjunction with other federal health care programs that exist within areas deficient in health care personnel. Authorization was granted for the collection of third party payments to offset the costs of administering such a program.[33]

The passage of Public Law 91-623 was a difficult task to accomplish. Advisors to President Nixon were strongly opposed to such a law and encouraged the President to veto the legislation. At the time the Nixon Administration was systematically eliminating the functions of the Public Health Service, with the intention of closing the eight remaining Public Health Services Hospitals and assorted clinics throughout the United States. The threat of eliminating the PHS was not encouraging for those who sought the establishment of the National Health Service Corps, which would be under the authority of the Public Health Service. After much

lobbying, the Bill was signed into law during the closing hours of the 91st Congress.[36,37]

The PHS was not eliminated but recruitment of members for the National Health Service Corps had a slow start. Many of the original members of the Corps were health care personnel who transferred from other areas of the Public Health Service. By 1972, the Corps had only 152 physicians, 20 dentists, and 116 other health care personnel. The need for medical manpower in rural areas was still pressing. The continuing trend among physicians to specialize was increasing the problems of rural and inner city areas in obtaining primary care physicians.[38]

As the Corps was authorized and budgeted through fiscal year 1973, new hearings were conducted and legislation drafted to address the problems which had emerged since the inception of the NHSC. P.L. 91-623 had required certification of a health manpower shortage by the local medical society. As this was found to be ineffective in terms of accurate reporting of primary care physicians, the requirement was stricken from the law. Designation of an area as having a health manpower shortage was now the responsibility of the Secretary of the Department of Health, Education and Welfare.[37]

Another problem with P.L. 91-623, was the assignment of personnel to areas of need without considering how that health provider would be paid. It was assumed originally that the community receiving the Corps member would be able to pay the Corps member's salary, however, those areas with the greatest need for health manpower were usually experiencing a depressed economy. Some areas were more likely than other areas to be able to finance and thus attract a health care provider. To eliminate the maldistribution of Corps personnel, legislation to relieve communities from any economic responsibility was passed. The Corps personnel would

now be paid through the Treasury Department. Other economic considerations were exposed as Congress worked to amendP.L. 91-623. A new Act, the Emergency Health Care Personnel Act Amendments of 1972, P.L. 92-585, resulted.[37]

Under P.L. 92-585, the areas needing health manpower were encouraged to become self-supporting. One step included the transfer of title to National Health Service Corps facilities, equipment and supplies to a non-profit institution in the area.[37]

One of the greatest problems was that of acquiring adequate numbers of personnel. To entice health professionals to apply for Corps positions the Secretary of DHEW was allowed to advertise via consultants and to reimburse potential recruits for the cost of traveling to and from a health manpower shortage area where the recruit might work. The new Act also allowed retired military personnel to serve in the Corps while receiving full pension from the military.[37]

Loan forgiveness for health professionals who sought government assistance for their education was included within P.L. 92-585. This clause allowed for more generous scholarship assistance with the agreement that the student recipient would work one year for each year of financial assistance in the National Health Service Corps, the Indian Health Service, the Federal Health Program Services, or other such programs as the Secretary may designate. The intention of this action was to establish a sufficient number of recruits for the NHSC over the years to serve as health care providers to the medically underserved. This effort was based on a similar approach used by the Defense Department to recruit health professionals for the military.[38]

The scholarship provision allowed medical students to postpone their obligation to the NHSC until they had finished their medical residency in

hopes that by completing their education, the young doctors would be inclined to remain in the Corps beyond their obligation date. Another feature presented with P.L. 92-585, allowed the medical student to seek his residency through the Public Health Service Hospital System. This had a dual purpose. First, the new doctor would fill a vitally needed position within the PHS hospitals, and secondly, the time devoted to the completion of the doctor's residency through the PHS hospital would count towards the obligation the medical personnel had accrued through the scholarship program.[38]

Those students eligible to receive scholarships for their educations included medical students, nursing students, and other health and allied health professional students. The criteria for eligibility required that the student: 1) enroll full-time, in an accredited educational institution in the United States or its territories; 2) seek a degree in the designated health professions; 3) be eligible for, or hold, an appointment as a commissioned officer in the Regular or Reserve Corps of the services or be selected for civilian service in the National Health Service Corps; and 4) agree in writing to serve, as prescribed by the law, in the Commissioned Corps of the Service or as a civilian member of the National Health Service Corps.[38]

In the advent that an individual who received scholarship aid for his education was unable to complete his obligation, a clause was included within P.L. 92-585 which required the student to repay the scholarship plus interest. However, individuals who would face untold hardship by completing their obligations could be excused by the Secretary.[38]

The National Health Service Corps continued to expand its mission to service the medically underserved with the passage of P.L. 94-484, the Health Professions Educational Assistance Act of 1976. Title I of this

Act extended the services of the National Health Corps through fiscal year 1977. The Act continued the authorization of funds for scholarship to students seeking education within the defined health fields, e.g. medicine, nursing, dental, pharmacy, and allied health.[39]

P.L. 94-484 provided financial assistance through grant awards to private non-profit or public groups for the construction of facilities for health service provision. These facilities were to be ambulatory primary care institutions that also functioned as teaching facilities for physicians and dentists. A provision addressing loans and their repayment is included within the text of P.L. 94-484. The criteria for eligibility includes the stipulation that the applicant be accepted by and attending full-time, an accredited institution in the health field. The stipulations of loan repayment address grace periods for continued education, service in the armed services, Peace Corps, NHSC and Domestic Volunteer Service Corps personnel. Communities seeking NHSC aid must demonstrate that: a medical manpower shortage does exist, they will be supportive of the Corps personnel, they are seeking to secure permanent health manpower, and the community has developed a fiscal plan for retrieving payments for services provided. This is accomplished by fee scales, third party payments, or other forms of payment. The area Health Services Agency must designate the existence of a health manpower shortage in support of the community's request. Priority is given to those areas where the greatest shortage of health care providers exists and where nurse practitioners and/or physician's assistants can function appropriately. Comments from the local medical and/or dental society are weighed in consideration of the application and the willingness of the community to help supply the necessary health facility for the Corps personnel to render services.[39]

Public Law 94-484 was amended to address scholarships and public health traineeships. The National Health Service Corps provides scholarships to students seeking education in a graduate program of public health. The specific criteria for eligibility for traineeship money requires a baccalaureate education in health fields such as epideminology, health administration, health planning, and geostatistics. Repayment of the traineeship for post graduate health education is not addressed in the current law.[39]

Scholarship money is also awarded to individuals who agree to enter the National Health Service Corps upon graduation for the period equivalent to the number of years the individual received NHSC scholarship money. The applicants are required to sign a contract agreeing to service in the Corps for each year of subsidization. If the applicant, upon completion of his education, is unable to uphold his contract by participation in the Corps he may repay his scholarship money to the Corps three dollars to one. Currently, all Corps personnel must apply to Region VI (Dallas) where the greatest health manpower shortage exists. The applicant is allowed to visit the site where they may be assigned.[18]

P.L. 97-35, the Omnibus Budget Reconciliation Act of 1981, extends the scholarship program for three years, authorizing the funding of 550 new scholarships annually. This is a reduction from the 1980 scholarship awards which numbered 1,700. Health professionals students currently eligible to apply for a NHSC scholarship include: dental, nursing, podiatry, pharmacy, and veterinary, public health, health administration, physician assistant, nurse practitioner, medical, and most recently, clinical psychology. Individuals who receive a NHSC scholarship are still required to practice within adesignated shortage area for the appropriate number of years to compensate for their subsidized education. Individuals who enter

the Corps upon graduation may enter as an officer in Regular or Reserve Corps of the Services, or as a member of the Corps, or as a civilian member of the Corps. A private practice option is also available to those scholarship recipients who choose to have a private practice located in a federally defined medical manpower shortage area.[5,15]

Private Practice Option

P.L. 97-35 modified the Private Practice Option Section of the Public Health Service Act, deleting the requirement that a physician choose to establish a private practice within a priority HMSA area. The new law also requires that the physician selecting this option "take assignment under Medicare and enter into an agreement with the state to provide services for Medicaid recipients."[15]

The Private Practice Option, under P.L. 97-35, allows the Secretary of DHHS to arrange for the use of equipment and supplies for the grantee. Upon completion of the grantee's obligation, he may purchase from the NHSC, the equipment and supplies at a fair market price. Other changes in P.L. 97-35 include the payment of moving expenses for the grantee and the purchase of malpractice insurance.[15]

With the passage of the Omnibus Budget Reconciliation Act of 1981 (P.L. 97-35) the Corps has been extended through fiscal year 1984. The changes which affect the Corps' present status will be discussed in the following sections on rules and regulations, eligibility, application process, services provided, criteria for assigning personnel and target population.

Rules and Regulations

There are no official rules and regulations governing the National Health Service Corps. This allows regional directors to interpret the law. Implementation of the law varies from region to region based upon those interpretations.[18]

Final rules and regulations governing Health Manpower Shortage Areas (HMSA) were published in the Federal Register on January 10, 1978. These regulations assist the Corps officials in determining the placement of a Corps officer or health provider within an HMSA.[52]

Eligibility

The Secretary of DHHS has the authority to approve applications for NHSC assignees. The Health Professions Educational Assistance Act of 1976, (P.L. 94-484) added a new Section 332 to the Public Health Service Act entitled, "Designation of Health Manpower Shortage Areas" (HMSA). Under this section, the following general criteria must be met for an applicant to qualify for NHSC personnel:

1) the area, either urban or rural, is designated as having a health manpower shortage;
2) the population group has been determined to be short of adequate health manpower; and
3) the public or non-profit private medical facility or other public facility has a health manpower shortage.[42]

As eligibility is dependent upon an area having a health manpower shortage, the following information must be presented by each applicant

1) the ratio of available health manpower to the number of individuals in an area, a population group, or the ratio of manpower to the number of persons served by a medical facility or other

public facility under consideration for designation; and

2) health indicators for individuals in an area or population group. These indicators include infant mortality rate, access to health services and health status.[42]

Application Process

In order for Corps personnel to apply to fill openings at clinical facilities, the following information is required. The clinic is to contact its regional health service agency to determine whether a health manpower shortage designation exists for the proposed area. The applicant is then to contact the local medical establishment for comments and include those comments with the application. The criteria for determining a primary medical care manpower shortage is based on a ratio of one physician to 3,500 individuals residing within a catchment area.[40]

The applicant must indicate that the proposed area to be served by NHSC personnel is more than 30 minutes travel timeto the nearest health care provider. Geographic criteria which present barriers to accessible health care include: 20 miles of normal primary roads, mountainous terrain, or areas within 15 miles of interstate highways leading to communities with primary health care providers. The applicant must establish the existence of a geographical barrier for the proposed catchment area, in addition to providing information demonstrating the lack of adequate medical manpower for the population served.[40]

The target population includes all civilian residents within the catchment area excluding inmates of public institutions. To determine what type of services a catchment area may need, the age distribution of the population in need of a primary health care provider is to be demonstrated.[23]

All non-federal physicians and doctors of osteopathy who provide direct, primary care services in the area are to be mentioned within the application. Foreign medical school graduates are not to be counted, and interns and residents are to account for only 0.1 full time equivalent physicians. Health care personnel who only deliver services within a hospital inpatient area are to be excluded from the numbers of primary care health providers.[23]

If an unusually high need for primary medical care services exists, the applicant is to provide evidence to support this need. The essential criteria for determining high need includes: 1) an area which has more than 100 births per 1,000 women ages 15-44, 2) an area which has more than 20 infant deaths per 1,000 live births, and 3) more than 20 percent of the population (or of all households) has an income below the poverty level.[23]

Along with establishing unusual primary health care needs, the application for NHSC personnel must provide information substantiating that existing primary care providers are unable to sufficiently meet the health needs of the population served. The criteria for this includes:

1) unusually long waits for an appointment for routine medical services (i.e. more than 7 days for established patients and 14 days for new patients;
2) more than 8,000 office or outpatient visits per year per primary care physicians serving the area;
3) excessive average waiting times at primary care providers i.e., more than an hour for a scheduled appointment and more than two hours in clinics who policy is first come, first served);
4) evidence of excessive use of emergency room facilities for routine care;

5) two-thirds or more of the local physicians refusing new patients; and

6) abnormally low utilization of health services, as indicated by an average of two or less office visits per year by the area's population.[23]

Certain medical facilities have been determined to be eligible to apply for National Health Service Corps personnel. They include:

1) medium to maximum security federal and state correctional institutions and youth detention facilities; and

2) public or non-profit medical facilities meeting the previously stated criteria indicating health manpower shortages.[23]

Criteria for Assigning NHSC Personnel

The assignment of Corps personnel to medically underserved areas is discussed in Section 333 of the Public Health Service Act. The current legislation, P.L. 97-35, has revised this section requiring organizations seeking Corps personnel to submit the following information:

1) an analysis of the potential use of health providers;,

2) a determination of the need for such personnel;

3) plans for recruiting, selecting, and retaining health personnel;

4) a determination of the community's ability to finance the Corps personnel and/or how much money would be needed from the NHSC to support the Corps member;

5) a description of the type of inpatient and other health services needed for clinical practice;

6) a plan for assisting the Corps personnel to develop a clinical practice and fee schedules;

7) a plan for the development of facilities for primary health care delivery; and

8) an intention to assist in in establishing governing bodies and assisting governing bodies in defining and carrying out their responsibilities.[37]

Public Law 97-35 deleted the requirement that mandated those Corps personnel who opted for Private Practice, to establish the practice within a Health Manpower Shortage Area. Also, P.L. 97-35 defines HMSAs as areas having a shortage of health manpower which are not reasonably accessible to an adequately served area.[15]

Services Provided

National Health Corps personnel are to provide, as feasible, health care to all individuals within health manpower shortage areas, regardless of the patient's ability to pay. The NHSC assignee may provide services at an established site, such as a Community Health Center, Migrant Health Clinic or a Free Standing National Health Service Corps Clinic. The services provided should be consistent with the requirements for federal programs. For example, those assigned to CHCs must provide the services identified under Section 330 of the Public Health Service Act.[7]

Target Population

The population served by the National Health Service Corps personnel must qualify for services by residing within a health manpower shortage area. The regional Health System Agency (HSA) designates an area as having a health manpower shortage. Recommendations from the state health planning agency or the state's Governor can assist in the designation of an area (urban or rural) as a health manpower shortage area.[41]

Summary

A brief history of the Public Health Service Act was presented. Four programs under the Public Health Service were discussed. The Community Health Centers Program (Section 330) of the Public Health Service Act was chronicled from its early beginning as the Neighborhood Health Center Program through the administrative decision to create the Rural Health Initiative Program. The Migrant Health Program's legislative history covered the early war on poverty days to the present. The National Health Service Corps and its development was expanded upon in terms of its legislative evolution. After the legislative history was reviewed, rules and regulations, eligibility, application process, criteria for awarding funds, services provided, and target populations for each program were explored.

The next section of this report will address the impact of these primary health care programs on the population of rural Texas. As the effects of the newest legislation governing these programs has yet to be felt, the following section will reflect that which has occurred in Texas in relation to Section 329-335 of the Public Health Service Act prior to the summer of 1981.

Federal Health Programs in Rural Texas

The federal health programs which were initiated in the early 1960's have had a significant impact on the health status of rural Texans. This section will address the effects of the following programs, Community Health Centers, Rural Health Initiatives, Migrant Health Programs, and the National Health Service Corps.

Determination of the impact of any health program on a population suggests that there are measurable changes in the conditions of the group being served. Ideally, the determination of change in the health status would be used to reveal that the health service has improved the health of the population. More pragmatically, evaluation is often confined to the numerical measurement of the services provided and the activities of the health care personnel and thus does not directly measure change in health status. This assessment of the impact of federal health programs on the health status of rural Texas will utilize both numerical analysis of the services provided and delineation of some of the statistical data employed as indicators of change.

Rural Health Initiatives, Migrant Health Clinics, and the National Health Service Corps in Texas are described to provide the data for evaluation. Available data has been supplemented with the results of a questionnaire. Following that, the impact of these programs upon rural Texans will be addressed. Next, problems encountered in the implementation of these programs in rural Texas will be explored followed by a brief section discussing similar or duplicative programs offered on the state level.

Rural Texas and Selected Federal Health Programs

This section will provide specific information in terms of numbers of programs, their location, counties served, and information about cost per medical encounter and sources of payment. First, the Rural Health Initiative Program will be addressed, followed by the Migrant Health Program and the National Health Services Corps.

Rural Health Initiatives in Texas

Rural Health Initiatives have served Texas since the early 1970s when they were known as Community Health Centers. Through the legislative process and administrative policy decisions, all Community Health Centers were designated as either Rural Health Initiatives or Urban Health Initiatives. Over the years, the designation of some programs has transferred from rural to urban, as the population status shifted to that of metropolitan.

In 1980, 22 Rural Health Initiatives existed, 19 were operational and three were funded for planning and development. (Map 6) The 19 RHIs operated 39 clinic sites and served 46 counties. Because of the recent opening of one program, no data is available; data is provided on the remaining 18 programs. During 1980, the Rural Health Initiative Programs served 89,732 individual clients throughout the State of Texas, excluding migrant workers. Table 2 shows the percent of Clinic users by age.[18]

Rural Health Initiatives in Texas provide a wide variety of services to the rural population. Services include screening for diabetes and hypertension, prenatal care and counseling, general physical assessment, and referrals to medical specialists or other agencies. Depending upon the size of the grant, various clinics are able to pay for the initial visit to a specialist, transportation to the specialist or to John Sealy Hospital in Galveston. Some clinics have environmental specialists to help assess environmental health hazards such as water pollution, sewage disposal, and rat control problems.

Table 3 provides operational and aggregate user information on the Rural Health Initiative Programs in Texas. This information is reported yearly to the Department of Health and Human Services as part of their

Map 6

Rural Health Initiatives in Texas
and Their Catchment Areas

1. Atascosa County RHI
2. Community Action Council of South Texas
3. Community Health Service RHI
4. Crosstimbers Health Clinics
5. Gonzales County MH/RHI
6. Panhandle RHI, Inc.
7. San Jacinto County Health Services, Inc.
8. South Texas Family Planning & Health Corp.
9. South Texas Rural Health Services Inc.
10. Maverick County Hospital District
11. South Limestone Community Health Center, Inc.
12. South Plains Community Action Association
13. South Plains Health Provider Organization, Inc.
14. Prairie View A&M
15. Greater Lake Livingston Health Service (N.O.)
16. Bowie County RHI (N.O.)
17. Buchanan Lake Health Service (N.O.)
18. Medina County RHI
19. Sierra Blanca RHI
20. Garvis-Hawkins RHI
21. Vida y Salud Health System
22. Buena Salud Health System

Source: Regional Office of the U.S. Department of Health & Human Services, Dallas, Texas, June 1981.

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TABLE 2: Rural Health Initiatives (RHI) and Migrant Health (MH) Grantees, Counties Served and Percent of Clinic Users by Age for 1980.

GRANTEE	COUNTIES SERVED	% USERS ≤ 4 YEARS OF AGE	% USERS WOMEN 15-19 YEARS OF AGE	% USERS WOMEN 20-34 YEARS OF AGE	% USERS WOMEN 35-44 YEARS OF AGE	% USERS ≥ 65 YEARS OF AGE	RURAL (R) MIGRANT (M)
Atascosa County RHI	Atascosa	23.6	8.5	14.4	6.3	4.7	R
Bowie County RHI	Bowie Red River				non-operational		R/M
Buchanan Lake Health Service	Llano				non-operational		R/M
Buena Salud Health System	Val Verde				non-operational		R/M
Community Action Council Of South Texas	Duval Jim Hogg Starr Zapata	23.4	5.5	20.5	6.9	9.8	R/M
Crosstimber Health Clinic	Comanche Mills San Saba	18.9	6.7	15.1	4.4	10.8	R/M
Gonzales County Medical Society	Gonzales	27.2	9.4	15.2	4.3	3.1	R/M
Greater Lake Livingston Health Service	Polk Trinity				non-operational		R/M

TABLE 2: Continued

GRANTEE	COUNTIES SERVED	% USERS ≤ 4 YEARS OF AGE	% USERS WOMEN 15-19 YEARS OF AGE	% USERS WOMEN 20-34 YEARS OF AGE	% USERS WOMEN 35-44 YEARS OF AGE	% USERS ≥ 65 YEARS OF AGE	RURAL (R) MIGRANT (M)
Community Health Service MHI	Hunt Rains	7.6	14.8	32.6	5.0	10.1	R/M
Maverick County Hospital	Kinney Maverick	35.9	5.1	14.0	3.4	3.1	R/M
Medina County MHI	Medina	20.9	7.7	19.9		9.5	R/M
Panhandle MHI, Inc.	Armstrong Briscoe Hall	12.7	6.1	11.3	5.3	16.3	R/M
Prairie View A&M University	Waller	.04	34.7	48.8	1.7	.01	R/M
San Jacinto County Health Services, Inc.	San Jacinto	10.1	6.0	6.7	4.3	14.3	R/M
Sierra Blanca MHI	Hudspeth	12.3	7.3	13.4	5.2	0.8	R/M
South Limestone Community Health Center, Inc.	Limestone	10.9	7.5	15.6	5.1	15.0	R/M

TABLE 2: Continued

GRANTEE	COUNTIES SERVED	% USERS ≤ 4 YEARS OF AGE	% USERS WOMEN 15-19 YEARS OF AGE	% USERS WOMEN 20-34 YEARS OF AGE	% USERS WOMEN 35-44 YEARS OF AGE	% USERS ≥ 65 YEARS OF AGE	RURAL (R) MIGRANT (M)
South Plains Community Community Action Assoc.	Cochran Garza Hockley Lynn Terry Yoakum	7.9	12.9	18.0	15.1	4.5	R/M
South Plains Health Provider Organization, Incorporated	Castro Crosby Deaf Smith Floyd Hale Lamb Motley	26.9	5.4	16.5	5.1	2.7	R/M
South Texas Family Planning and Health Corporation	Bee Nueces San Patricio	3.4	17.6	52.7	11.5	.07	R/M
South Texas Rural Health Services, Inc.	Dimmit Frio La Salle	18.2	6.2	14.2	7.6	5.7	R/M
Jarvis - Hawkins, RHI	Smith Upshur Wood	.04	29.2	19.3	.8	.04	R/M
Vida y Salud Health System, Inc.	Zavala	24.1	8.0	11.3		4.0	R/M

TABLE 2: Continued

GRANTEE	COUNTIES SERVED	% USERS ≤ 4 YEARS OF AGE	% USERS WOMEN 15-19 YEARS OF AGE	% USERS WOMEN 20-34 YEARS OF AGE	% USERS WOMEN 35-44 YEARS OF AGE	% USERS ≥ 65 YEARS OF AGE	RURAL (R) MIGRANT (M)
San Marcos-Hayes County Mental Health Project	Blanco Caldwell Comal Guadalupe Hayes Travis	17.4	7.8	9.7	6.7	4.0	M

SOURCE: Calculated from data provided by the Regional Office, Region VI, Department of Health and Human Services, Dallas, Texas 1981.

TABLE 3: Texas Rural Health Initiatives (RHI's): Grantees, Date of Establishment, Number of Clinic Sites, Counties Served, Users, and Sources of Generated Income for January 1, 1980 through December 31, 1980.

GRANTEE AND DATE OF ESTABLISHMENT	NUMBER OF CLINIC SITES	COUNTIES SERVED	NUMBER OF USERS	COST PER MEDICAL ENCOUNTER	SOURCES OF GENERATED INCOME JANUARY 1, 1980 - December 31, 1980				
					MEDICARE	MEDICAID	TITLE XX	OTHER	PATIENT FEES COLLECTED
Atascosa County RHI* 1978	1	Atascosa	1,949	$ 19.58	$ 2,988	$ 3,405	$ 5,334	$ 850	$ 4,840
Bowie County RHI 1980	0	Bowie, Red River		Non Operational					
Buchanan Lake Health Service 1980	0	Llano		Non Operational					
Buena Salud Health System 1980	1	Val Verde		Non Operational					
Community Action Council of South Texas 1971	3	Jim Hogg, Starr, Zapata	11,096	15.19	14,286	18,056	58,214	17,009	129,173
Crosstimber Health Clinic 1970	3	Comanche, Mills, San Saba	3,185	21.48	1,105	2,139	-0-	15,527	39,081
Gonzales County Medical Society 1972	1	Gonzales	2,960	16.90	2,655	5,846	29,768	45,594	11,190
Greater Lake Livingston Health Services, Inc. 1980	0	Polk, San Antonio, Trinity		Non Operational					
Hunt County Opportunity Center 1976	2	Hunt, Rainey	4,195	17.56	19,363	25,088	68,672	1,827	62,393
Jarvis Christian College 1980	1	Wood, Smith, Upshur	243	48.63	-0-	-0-	-0-	-0-	5,290
Maverick County Hospital District 1976	2	Maverick	9,527	15.26	3,914	28,788	52,357	16,441	15,633
Medina County Commissioners Court 1979	2	Medina	1,772	43.37	4,507	5,390	6,094	264	22,152
Panhandle RHI, Inc. 1979	1	Armstrong, Briscoe, Hall	442	383.66	629	92	-0-	215	8,932
Prairie View A & M Univ. 1976	1	Waller	2,389	32.36	-0-	66	55,510	-0-	23,468
San Jacinto County Health Services, Inc.,	1	San Jacinto	2,399	20.56	16,282	12,678	5,028	10,716	61,234

TABLE 3: Continued.

GRANTEE AND DATE OF ESTABLISHMENT		NUMBER OF CLINIC SITES	COUNTIES SERVED	NUMBER OF USERS	COST PER MEDICAL ENCOUNTER	SOURCES OF GENERATED INCOME JANUARY 1, 1980 - December 31, 1980				
						MEDICARE	MEDICAID	TITLE XX	OTHER	PATIENT FEES COLLECTED
Sierra Blanca MHI	1979	1	Hudspeth	575	31.47	902	406	-0-	3,085	20,477
South Limestone Community Health Center, Inc.	1977	1	Leon, Limestone	1,346	22.46	20,866	12,369	-0-	1,534	60,191
South Plains Community Action Association, Inc.	1976	4	Cochran, Garza, Hockley, Lynn, Terry, Yoakum	8,104	18.53	398	731	147,536	65,009	16,822
South Plains Health Provider Organization, Inc.	1976	8	Castro, Crosby, Deaf Smith, Floyd, Hale, Lamb, Motley	18,045	19.90	9,464	23,294	50,602	280,384	139,649
South Texas Family Planning Health Corp.	1977	4	Bee, San Patrecio	12,364	17.28	1,008	2,633	65,878	1,853	19,525
South Texas MH Services, Inc.	1977	1	Dimmit, Frio, La Salle	2,777	16.27	1,959	2,660	-0-	4,014	23,630
Vida y Salud Health System, Inc.	1974	1	Zavala	4,415	19.21	9,250	11,720	-0-	19,103	89,552

*Atascosa figures represent 6 months, July 1, 1980 - December 31, 1980.

Source: Data provided by Regional Office, Region VI, Department of Health and Human Services, Dallas, Texas, 1981.

monitoring activities. The table gives an overview of the financial operations which supplement the grant funds. The RHIs are given a two year grace period to meet federal requirements for a cost per medical encounter. During 1980,RHIs in Texas averaged a cost of $23.31 per visit. One clinic was eliminated from the calculation because of the unusual circumstances which effected its cost per medical encounter. That clinic was operational only on weekends and for limited hours. The imbalance between patients served and the operational costs resulted in skewed figures. The choice to eliminate that clinic from the calculation was done to eliminate the skewed effect its sum would have had on the average, thus giving a false average score for all clinics.

Rural Health Initiatives have become an integral part of the health care delivery system. Since their inception during the 1970s, RHIs have provided a wide range of services to rural Texans. The Migrant Health Clinics, which are discussed next, were designed to provide similar health services to a specific sub-group of the population.

Migrant Health Clinics

The Migrant Health Program came into existence in the 1960's during the Johnson Administration. The need for health services was desperately apparent among the migrant population. In an effort to alleviate the health problems which could be controlled with primary health care services such as immunizations, health teaching, and environmental sanitation, legislation creating federally funded health clinics for migrant families was enacted.

The early clinics in Texas served the migrant worker and his family. Later legislation increased the eligible population, including seasonal workers, their families and retired migrant workers. In 1980 there were

18 clinics funded to serve the migrant/seasonal workers and their families (See Map 7). Of these programs, twelve were located in rural areas and six served urban populations. The rural migrant programs have 35 clinic sites while the urban programs have 12. As of September 1981, 35 rural counties are within the catchment areas of a migrant health clinic. In 1980, the number of rural users was 84,340 and the number of urban users was 58,871, totalling 143,211 individuals served through the migrant health projects in Texas (See table 2).[18]

Migrant Health Clinics provide primary care. Typically, the services include prenatal care, immunizations, screening for hypertension, diabetic screening, and health teaching as well as general health assessment. Prenatal care is provided up to the seventh month in most cases. Thereafter, the woman is responsible for securing medical attention elsewhere. Due to budgetary cutbacks some clinics have eliminated this service.

Table 4 provides location, users and generated income for the Migrant Health Clinics, as was reported to the Department of Health and Human Services, for 1980. The average cost per medical encounter for urban clinics was $22.20 and for rural clinics was $22.31.[47]

Some clinics are both Migrant Health Clinics and Rural Health Initiatives. Map 8 represents actual site locations for both Migrant Health Clinics and Rural Health Initiatives.

National Health Service Corps

Along with Rural Health Initiatives and Migrant Health Clinics, rural Texans have another federal source of health care, the National Health Service Corps (NHSC). Currently 120 NHSC personnel are employed in rural and migrant programs in Texas. Ten are found in free standing clinics; ten

Map 7

Migrant Health Clinics in Nonmetropolitan Texas
and Their Catchment Areas

Nonmetropolitan Migrant Clinics

1. Bueno Salud Health System
2. Community Action Clinic of South Texas
3. Cross Timbers Health Clinic
4. Gonzales County MH/RHI
5. Maverick County Rural Health
6. Medina County Rural Health Initiative
7. San Marcos-Hayes County Migrant Health Project
8. South Plains Community Action Agency, Inc.
9. South Plains Health Provider Organization
10. South Texas Family Planning & Health Corporation
11. South Texas Rural Health Services
12. Vida y Salud Health Systems, Inc.

Source: Regional Office of the U.S. Department of Health and Human Services, Dallas, Texas, June, 1981.

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TABLE 4: Texas Migrant Health Programs: Grantees, Date of Establishment, Number of Clinic Sites, Counties Served, Users, and Sources of Generated Income for January 1, 1980 through June 30, 1980.

GRANTEE AND DATE OF ESTABLISHMENT	RURAL/ URBAN	NUMBER OF CLINIC SITES	COUNTIES SERVED	NUMBER OF USERS	COST PER MEDICAL ENCOUNTER	JANUARY 1, 1980 - JUNE 30, 1980				
						MEDICARE	MEDICAID	TITLE XX	OTHER	PATIENT FEES COLLECTED
Barrio Comprehensive Family Health Care Center 1978	U	1	Bexar	3,009	$43.04	$ 1,337	$ 1,425	$ -0-	$ -0-	$ 17,069
Brownsville Community Health Center 1976	U	1	Cameron	5,546	24.00	3,304	2,117	-0-	1,123	36,879
Buena Salud Health System	R	1	Val Verde		Non Operational					
Centro del Barreo, Inc.	U	1	Bexar		Non Operational					
Community Action Clinic of South Texas 1967	R	3	Jim Hogg, Starr, Zapata	11,955	15.00	5,885	9,268	47,305	9,069	60,963
Cross Timbers Health Clinic 1978	R	1	Commanche Miles, San Saba	1,729	23.00	33	716	-0-	8,930	19,224
Gonzales County Migrant Health Project 1965	R	1	Gonzales	1,965	16.00	671	2,284	18,357	23,961	4,934
Hidalgo County Health Care* Corporation 1966	U	3	Hidalgo	14,225*	14.00*	-0-*	-0-*	-0-*	-0-*	159,315*
Laredo-Webb 1963	U	3	Webb	4,029	12.00	-0-	50	-0-	1,271	4,275
Maverick County Rural Health 1978	R	1	Kinney, Maverick	3,556	16.00	1,369	15,092	37,214	7,285	7,885
Medina County Rural Health Initiative 1979	R	2	Medina	737	65.43	445	218	-0-	104	7,285
San Marcos Hayes County Migrant Health Project 1968	R	1	Blanco, Caldwell, Comal, Guadalupe, Hayes, Travis	398	15.00	-0-	120	-0-	240	1,760
South Plains Community Action Center, Inc. 1971	R	3	Cochran, Hockley, Lynn, Terry, Yoakum	4,160	22.00	333	550	99,778	56,458	9,468

TABLE 4: (continued)

GRANTEE AND DATE OF ESTABLISHMENT		RURAL/ URBAN	NUMBER OF CLINIC SITES	COUNTIES SERVED	NUMBER OF USERS	COST PER MEDICAL ENCOUNTER	JANUARY 1, 1980 - JUNE 30, 1980				
							MEDICARE	MEDICAID	TITLE XX	OTHER	PATIENT FEES COLLECTED
South Plains Health Provider	1972	R	7	Castro, Crosby, Deaf Smith, Floyd, Hale, Lamb, Smith	10,688	20.00	2,522	7,732	39,496	19,480	65,850
South Texas Family Planning & Health Corporation	1977	R	3	Bee, Nueces, San Patricio	1,930	18.00	102	119	-0-	741	3,857
South Texas Rural Health Services	1977	R	1	Dimmit, Frio La Salle	1,999	15.000	1,002	1,263	-0-	1,939	13,397
Su Clinica Familiar*	1970	U	2	Cameron, Willacy	18,478*	18,00*	14,512*	22,239*	-0-*	24,423*	242,675*
Vida y Salud Health Systems, Inc.	1972	R	1	Zavala	3,053	20,00	3,588	2,756	-0-	7,735	42,278

*Figures for Hidalgo and Su Clinica are for 12 months, January - December, 1980.

Source: Data provided by Region VI Office of the Department of Health and Human Services, Dallas, Texas, 1981.

Map 8

Rural Health Initiatives and Migrant Health
Clinic Sites in Nonmetropolitan Texas

*non operational clinic sites
. operational clinic sites

Source: Regional Office, U.S. Department of Helth and Human Services, Dallas, Texas, July, 1981.

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serve in the private practice option; 80 Corps members serve in the area south of San Antonio; and the remaining twenty serve in the rest of the state.

A total of 255 NHSC personnel have provided or are presently providing health services to the people in underserved areas of Texas since 1972. Of those 255 people, 139 were physicians, 48 dentists, 28 nurse practitioners, 8 nurse midwives, 13 physicians assistants, 7 registered nurses, 3 social workers, 7 nutritionists or dieticians and 2 pharmacists (Table 5).

The Free Standing National Health Service Corps Clinics in rural Texas are located in Hempstead, Farwell, Crystal Beach, Alpine, and Marfa. These clinics are self-supporting entities that receive only physician and administrative assistance from the Corps. The fees for services are based upon a sliding fee scale schedule determined by the patient's income level.[18]

Of the five rural free standing clinics, one is designated as a dental clinic (Farwell), one is a psychiatric clinic (Alpine), and the remaining three are primary care clinics. Farwell Clinic serves Parmer County, where anyone is eligible to receive dental care. The Hempstead Clinic serves Waller County, with an annual user population of 2,300. During 1980, the clinic at Marfa served 1,171 people residing within Presidio and the southern half of Jeff Davis counties. The Crystal Beach Clinic served 1,053 people in its ten months of operation in 1980; its catchment area is the Bolivar Pennisula. The only NHSC psychiatric clinic which became operational in 1980 is located in Alpine. Thus far, the Alpine Clinic serves Brewster, Presidio, Jeff Davis, Culbertson and Hudsbeth counties.[18]

TABLE 5: National Health Service Corps Personnel Entering Two Year Service to Texas Clinics 1972-1981*

PERSONNEL	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	TOTAL
Physicians	6	3	4	4	4	15	29	31	27	16	139
Dentists	2	-	1	2	3	3	8	6	8	15	48
Nurse Practitioners	3	-	-	1	2	2	4	10	3	3	28
Nurse Midwives	-	-		-	-	-	1	3	2	2	8
Physician Assistants	2	2	-	-	-	1	6	1	1	-	13
Registered Nurses	-	1	-	-	-	1	1	-	4	-	7
Masters of Social Work	-	1	-	-	-	-	1	1	-	-	3
Dieticians/ Nutritionists	-	1	-	1	-	1	1	2	-	1	7
Pharmacists	-	-	-	-	-	1	-	1	-	-	2
TOTALS	13	8	5	8	9	24	51	55	45	37	255

*Unduplicated totals

Source: Office of Regional Director of the National Health Service Corps, Region VI, Department of Health and Human Services, Dallas, Texas, July 1981.

Each free standing clinic is eligible to receive a front desk and bookkeeping system free for the first year of operation; thereafter, the clinic is responsible for the expenses incurred. Certain clinics can qualify for a $10,000 loan to assist with initial operational costs. Only two Texas clinics have received this loan. The free standing clinics have the same standards as RHIs and MH clinics regarding stabilizing cost per medical encounter. Of the three free standing clinics, only one has been operational for at least two years, and its operational cost is $21 per medical encounter. That clinic has since converted to a private practice. Crystal Beach, in operation for only ten months during 1980, has a cost per medical encounter of $35.[18]

Currently there are ten National Health Service Corps physicians within Texas who have chosen the private practice option as a means of repaying their obligations to the Corps for scholarship assistance. Eight are practicing in rural areas.[18]

The policy governing the private practice option requires that a physician practice in a HMSA for the same number of years that he received financial aid from the Corps. These ten NHSC physicians are practicing in the following areas: Presidio, Presidio County; San Saba, San Saba County; Emory, Rains County; Jefferson, Marion County; Roma, Starr County; Dallas, Dallas County; Harlingen, Cameron County.[18]

A discussion of funding for federal programs in Texas follows. This discussion will focus on federal expenditures during the last four years.

Grants to Texas Clinics

Grant monies awarded to the Rural Health Initiatives and Migrant Health Programs over the last four years will now be discussed. The figures presented in Table 6 are strictly grant monies authorized by Section

329 (Migrant Health Programs) and Section 330 (Rural Health Initiatives) of the Public Health Service Act. Other sources of revenue, such as the WIC Program, have not been identified because clinics vary in the amount of money awarded to them from other public service grants.

TABLE 6
Four Year Summary of Federal Grant Monies to Rural Health Initiatives and Migrant Health Programs in Texas[49,54]

	Rural Health Initiative (Section 330)	Migrant Health Program (Section 329)
1978	$ 3,566,845	$5,0[illegible],642
1979:	$ 2,979,[illegible]49	$5,8[illegible]3,195
1980:	$ 3,539,302	$4,455,402
1981:	$ 3,123,665	$7,461,834
TOTAL	$13,209,461	$22,797,073

Over $36 million has been spent in Texas for the operation of the Rural Health Initiative and Migrant Health Programs during the last four years. Since Congress' approval of the Reagan Administration's 25 percent cutback in funding in 1981, four Rural Health Initiatives have closed. These defunded RHI's include theBuchanan Lake, Bowie County, Sierra Blanca and Lake Livington programs.[18,49]

In an effort to gain data on the federally funded clinics in rural Texas, a survey of each of these programs was conducted. A discussion of the results follows.

Survey of Federally Funded Clinics in Texas

An open-ended survey was conducted of federally funded clinics in non-metropolitan Texas. The purpose of this survey was to obtain data which would reveal the specific needs of the rural clinic population, identify any preceived changes in health status and examine conditions which effect the clinic's ability to deliver services.

All but two clinics responded to the survey. Most interviews were conducted by phone. Several interviews were held at clinic sites or conducted through the mail. The information from the survey has been categorized and will be discussed by category.

Prevalent Health Problems Before the Clinic/Program Opened

Diabetes, hypertension/cardiovascular disease were cited by a majority of the respondents. Upper respiratory infections, obesity, and veneral disease, skin infections and infant mortality were identified by 4-5 clinics. Nutritional deficiencies were identified by two clinics.

Current Most Prevalent Health Problems

Hypertension, diabetes, upper respiratory diseases, venereal diseases, and obstetric/gynecological problems were cited with the highest frequency. Other responses included cardiovascular problems, otitis media, obesity, and prenatal care.

Special Health Needs Identified Since Clinics Beginning

The most frequent responses were prenatal care, preventive health teaching, nutritional problems and hypertension screening. As with the previous question, the remaining responses were varied and some were

unique. For example, one clinic has a predominately older population and opthalmological problems of aging were most prevalent. This clinic has had to provide a special opthalmology clinic to meet their client's needs. The respondents to this question who identified prenatal care and family planning as a special need further indicated that the infant mortality rate for their catchment areas has decreased since the founding of the clinic.

Referrals

Data concerning referrals varied from clinic to clinic. It has not been a federal requirement to report referrals. The types of referrals were for those services not provided by the clinic: specialized cancer treatment, high risk pregnancies, emergency room services, mental health services, social services and hospitalization for birthing or illness. The percent of the clinic population who were referred was estimated by the clinic staffs to be in the range of 2-5 percent annually with the majority of referrals being for birthing. Many respondents indicated that they were increasing the number of referrals to special services. Clinics with staffs, who have been stable over time, were more likely to develop rapport with other state and federal health and social services programs and report more referrals.

Generally, an increased use of referrals to both public supported programs as well as to private physicians and hospitals was reported. The rate of increase experienced by most clinics was associated with increased numbers of patients, better rapport with other health care providers, and with the increase in the numbers of pregnant females within the clinic population. Clinics which did not address this question, stated that they had not been required to keep data on referrals, or that the clinic had

not been operational one year and comparison was not feasible based on such a short operational period.

Reports

Generally, the clinics report to the DHHS Regional Office quarterly. The types of reports submitted are the BCRR and the BCHS and are sent to the National DHHS Office in Rockville, Maryland. Any updated annual report is submitted to the Regional Office in Dallas, the Texas Department of Health, the Governor, the local library, and the State Senators and Representatives who serve the counties within the particular catchment area.

Depending upon the services offered by the clinics, other reports which are submitted to various authorizing agencies include financial reports on WIC (Women, Infants & Children) recipients; quarterly insurance reports to the Texas Employment Commission, and a monthly report to the Texas Department of Health regarding communicable diseases. Those clinics having National Health Services personnel, submit a report to the Regional Office in Dallas. The reporting requirements for publicly funded health service agencies can be tedious and time consuming, depending upon the number of services offered by the clinics. Often clinics serving the migrant and rural population also receive grant monies to operate in conjunction with other federal and state health programs. The reporting burden placed upon the administrative personnel conceivably takes away from the time needed to improve services through administrative planning.

Private Physicians

Three clinics identified private physicians as providing direct services within the clinics to the patients. The majority utilized local

physicians for referrals such as obstetrics and other speciality areas. Some clinics with NHSC physicians or physicians whose services had been contracted for, indicated that rapport had been maintained with local physicians by having the clinic physicians rotate coverage at the local hospital. This integration of services also resulted in referrals by the private physicians to the clinic. One clinic indicated that a privately contracted physician served as their medical director.

Five clinics responded negatively to the question of whether the local physicians worked in conjunction with the clinic, describing the relationship between the clinic and the private physicians as follows: one clinic had to recruit doctors from a neighboring metropolitan area as the local doctors did not choose to participate with the clinic; another was located in a county with no physician; one clinic was seeking to establish its clinic separate from the hospital and was meeting resistance from the local doctors and the hospital administrator; and finally, one clinic indicated that the local physicians viewed the clinic as an economic threat as Medicaid, Medicare, and Title XX funds were going to the clinic rather than to their private practices.

Responses concerning the support of the local medical establishment were as follows:

One clinic declined to respond; one clinic indicated that it did not apply, as no doctors were in the county; and nine clinics indicated that the local doctors were opposed to the clinics. Of the doctors who were supportive, many helped in drafting the grant application and some worked in conjuction with the clinic. Of the doctors who opposed the clinics, one clinic indicated that the doctors felt the clinic was competing for Medicare/Medicaid funds.

Enhancing Job Performances

Eleven respondents indicated that a good medical and nursing staff working harmoniously was a major factor in the provision of quality care. Eight respondents indicated that the quality of the facility made delivery of services better. Eight respondents stated that the achievements of rapport and coordination with local doctors and/or others service agencies enhanced the quality of services delivered. Five respondents indicated community support was a major impetus for the effect of the clinic within the catchment area. Other factors listed included have a birthing center, bilingual staff members, the cooperation of the local medical establishment, the protection of human dignity, outreach components, transportation components, and finally, a strong advisory board governing the clinic.

Major Factors Interferring with Job Performance

The top three responses were: 1) lack of a facility and/or inadequate facility; 2) limited grant monies, thus limiting services to be provided; and 3) lack of patient transportation, either to the clinic or to the Public Health Hospital in Galveston. Other deficiencies were resistance by the local physicians to the NHCS doctors, lack of staff, too large a patient load, the legal status of nurse practitioners in Texas, no medical or nursing home facilities within the county, cross-cultural barriers between staff and patients (language, folk medicine), the flood of federal regulations, lack of physicians who were prepared in certain speciality areas and poor communication between clinic and the patients or perspective patients in the community.

National Health Service Corps Personnel

Of the respondents, six stated that they no longer qualified for NHSC personnel. The loss of eligibility for NHSC personnel was due to the changing status of the areas in terms of Health Manpower Shortage Areas. The other responses indicated that four clinics were qualified but could not attract a physician to remain as an assignee. The remaining clinics indicated that they had a total of 15 doctors, 2 family nurse practitioners, 1 R.N., M.S.N. clinician, 1 physician's assistant, and 1 medical social worker. One clinic indicated that the reason they were not able to have a NHSC physician for which they qualified, was because the local medical establishment blocked the position. In the application process for the assignment of Corps personnel to an area, voluntary letters from the local medical establishment are used in support of the need for the Corps members.

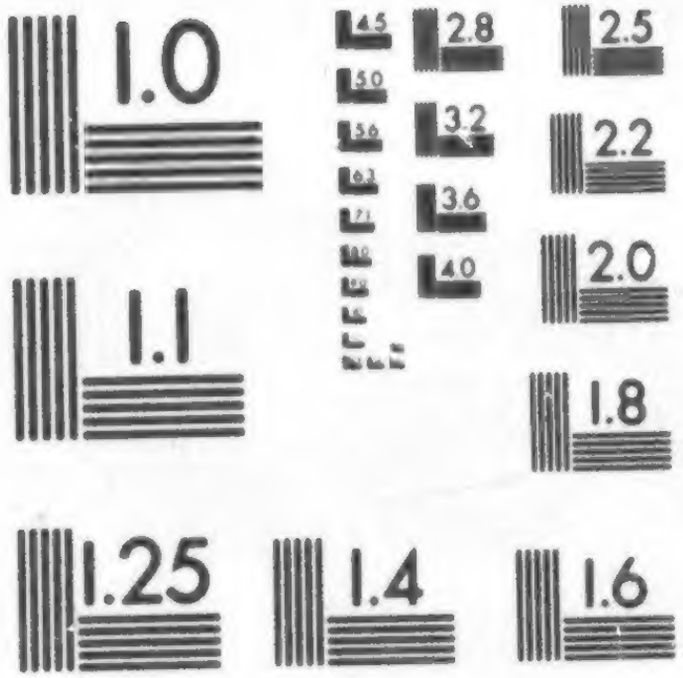
An examination of infant and general mortality ratos over a fifteen year period shows that the federal health program have had an impact on the health of Rural Texas.

Comparisons of Infant and General Mortality Rates Over a Fifteen Year Period

Infant mortality rates have decreased across Texas from 21.4 in 1970, to 12.9 percent in 1979. The population served by federal health programs have experienced similar decreases. These populations however, have more health and other problems than Texans in general. The clinics may have had an impact on the population to produce the similar reductions in infant mortality.[51]

Table 7 presents the infant mortality and general mortality rates of the counties served by the federal programs. The rates for 1970 and 1980 are actual rates from the census count and the rates for 1965 and 1975 are estimated rates based on the census. The change is calculated from the year listed prior to the start date of the clinic for a five and ten year period. It should be noted that the clinic may have been in operation for one to nine years of the period for which the rate change is computed. The majority of the counties show a consistant decrease in infant mortality rates during these periods. The ten year period indicates the most dramatic decline in infant mortality rates showing that almost all of the counties experienced a decrease in infant mortality. The change may be directly related to program services.

The general mortality figures are examined using the same formula. General mortality is more difficult to evaluate in relationship to services. General mortality might be expected to decline with the introduction of medical care where none had previously existed. The length of time that the decline might continue is unknown. A comparison with life expectancy of White middle class America could be taken as the standard for comparison of life expectancy of minority and poverty groups. Once the standard is reached, then presumably medical care would no longer increase life expectancy. Medical care is, however, only one of the variables which affects life expectancy. Other variables include age and environmental conditions. As long as life expectancy is increasing, the general mortality rate would decrease, but would be expected to return to the mean as it becomes less and less possible to extend life expectancy. More complete knowledge of life expectancy, preventable deaths, environmental hazards, and causes of death on a county basis are needed to predict the change in death rate from adding primary medical services.



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

TABLE 7: Comparisons of Infant Mortality and General Mortality Rates for Counties Served by Rural Health Initiatives (RHI) and/or Migrant Health (MH) Clinics for Five and Ten Year Periods Surrounding the Start Date of the Rural Health Initiative and/or Migrant Health Clinic by County.

		POPULATION[2]		INFANT MORTALITY RATES[3]						GENERAL MORTALITY RATES[3]					
COUNTY SERVED BY RHI OR MH CLINIC	YEAR OF GRANT	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS	1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS	1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS
Armstrong	1978	+5.2		*	*	41.7	*	*		13.6	17.4	11.1	10.0	-9.9	
Atascosa	1979	+26.5		28.4	36.0	10.3	21.6	+109		7.9	11.0	9.1	10.3	+13.2	
Bee	1971	+2.5	+14.5	23.8	19.0	26.4	8.8	+39.0	-53.7	7.0	7.9	7.4	8.8	-6.3	+11.4
Blanco	1967	-9.5	+6.6	15.6	15.4	*	*	-1.3	*	14.5	19.6	15.2	10.9	+45.6	+12.6
Bowie	1979	+8.0		21.2	18.4	18.5	15.3	-17.3		9.1	10.3	10.3	9.3	-9.7	
Briscoe	1978	-4.6		14.9	*	46.5	21.7	-53.0		7.4	11.5	11.5	13.2	+14.7	
Caldwell	1967	+31.9	+37.0	42.0	13.6	10.9	8.7	-5.7	-74.0	12.5	10.3	9.1	10.7	-17.6	-27.2
Castro	1975	+3.5		28.5	55.3	4.6	26.4	+473.0		4.8	7.4	6.2	6.8	+9.7	
Cochran	1975	-1.5		33.0	25.6	12.5	12.0	-4.0		6.4	8.3	8.4	4.4	-47.6	
Comal	1967	+10.9	+30.3	20.3	11.3	17.3	1.7	-44.3	-14.8	9.4	10.3	10.4	10.1	+9.6	+10.6
Commanche	1969	-7.9	-5.6	36.4	27.6	17.2	12.0	-24.2	-52.7	14.7	14.8	14.8	15.1	+0.7	+0.7
Crosby	1975	+3.0		38.5	29.6	6.2	13.1	+111.2		6.4	8.8	9.4	8.7	-7.4	
Deaf Smith	1975	+9.1		51.2	37.7	28.1	20.9	-25.6		7.6	7.6	7.2	6.9	-4.2	
Dimmit	1976	+7.2		69.3	27.9	4.1	18.4	+348.8		8.3	7.3	5.9	7.0	+18.6	
Duval	1970	+0.7	+67.8	25.4	16.3	16.1	17.6	-1.2	+8.0	6.8	10.0	9.2	11.3	-8.0	+13.0
Floyd	1975	-8.9		55.4	9.5	10.9	9.9	-9.2		8.7	8.8	9.0	9.5	+5.6	

TABLE 7: (continued)

COUNTY SERVED BY RHI OR MH CLINIC	YEAR OF GRANT	POPULATION[2] INITIAL % CHG ≤ 5 YRS	POPULATION[2] SUSTAINED % CHG ≤ 10 YRS	INFANT MORTALITY RATES[3] 1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS	GENERAL MORTALITY RATES[3] 1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS
Frio	1976	+19.9		28.9	27.2	7.3	6.6	-6.8		7.5	8.3	8.3	7.4	-10.8	
Garza	1975	+4.6		45.0	20.2	9.9	16.1	+62.6		13.1	11.0	12.4	12.7	+2.4	
Gonzales	1971	+0.8	+3.1	47.8	28.5	14.7	12.3	-48.4	-56.8	12.3	13.8	13.0	13.9	-5.8	+0.7
Guadalupe	1967	+13.7	+30.1	26.7	27.1	15.7	14.9	+1.5	-41.2	9.3	8.5	7.9	8.5	-8.6	-15.1
Hale	1975	+5.0		34.1	25.1	19.6	14.1	-28.1		6.5	9.1	8.3	8.1	-2.4	
Hall	1978	-3.6		15.3	10.6	10.9	34.9	+220.2		11.5	13.1	16.9	13.2	-21.9	
Hays	1967	+24.3	+59.1	28.7	22.2	7.9	4.5	-22.6	-72.3	8.4	7.1	5.7	5.9	-15.3	-32.1
Hockley	1975	+11.1		45.4	30.9	33.7	10.4	69.1		6.0	7.7	7.8	5.9	-24.4	
Hudspeth	1978	-5.9		18.9	30.3	36.4	*	*		5.3	7.1	5.2	7.7	+48.0	
Hunt	1975	+11.4		39.8	23.9	23.2	11.7	-49.6		10.4	11.9	11.7	10.0	-14.5	
Jim Hogg	1970	+3.1	+11.0	57.9	35.3	31.3	17.2	-11.3	-51.3	7.4	10.1	7.5	7.4	-25.7	-26.7
Kinney	1977	-0.9		20.8	38.5	*	*	*		11.3	11.5	11.3	13.6	+20.4	
Lamb	1975	+12.5		37.9	40.6	28.1	17.8	-36.6		4.7	10.8	10.8	9.3	-13.9	
LaSalle	1976	+6.0		53.0	30.9	7.9	13.8	+74.7		9.4	9.5	9.6	10.5	+9.4	
Leon	1976	+6.6		33.9	9.7	30.3	26.8	-11.6		12.0	16.3	16.6	16.5	-0.6	
Limestone	1976	+13.0		43.7	45.2	38.6	27.1	-29.8		14.4	16.9	15.1	11.2	-25.8	
Llano	1980			*	29.4	*	12.0	*		17.1	18.3	15.4	13.7		

TABLE 7: (continued)

COUNTY SERVED BY RHI OR MH CLINIC	YEAR OF GRANT	POPULATION[2] INITIAL % CHG ≤ 5 YRS	POPULATION[2] SUSTAINED % CHG ≤ 10 YRS	INFANT MORTALITY RATES[3] 1965	1970	1975	1980	INFANT MORTALITY RATES[3] INITIAL % CHG ≤ 5 YRS	INFANT MORTALITY RATES[3] SUSTAINED % CHG ≤ 10 YRS	GENERAL MORTALITY RATES[3] 1965	1970	1975	1980	GENERAL MORTALITY RATES[3] INITIAL % CHG ≤ 5 YRS	GENERAL MORTALITY RATES[3] SUSTAINED % CHG ≤ 10 YRS
Lynn	1975	+2.4		43.7	30.9	24.2	*	*		7.0	9.3	9.5	9.4	-11.6	
Maverick	1975	+47.4		23.1	17.7	17.2	3.6	-79.1		4.7	5.7	7.0	4.5	-35.7	
Medina	1978	+6.7		31.8	14.0	13.6	20.4	+5.0		6.6	9.0	9.1	8.2	-9.9	
Mills	1969	-6.4	-6.7	37.7	*	17.9	*	*	-52.5	13.8	13.7	20.5	21.0	-0.7	+48.6
Motley	1975	+8.3		29.4	*	*	*	*		8.3	16.5	14.4	15.4	+6.9	
Nueces	1971	+4.2	+12.9	20.1	21.0	14.3	13.0	-32.0	-38.1	6.7	7.1	6.6	7.0	-7.0	-1.4
Polk	1980			47.1	12.8	18.8	10.5	*		14.3	15.0	12.3	11.1		
Rains	1975	+10.0		32.3	*	20.8	*	*		14.9	12.5	8.4	11.8	+40.5	
Red River	1979	+11.0		17.9	24.6	5.5	10.5	+91.0		13.5	15.4	15.8	13.7	-13.3	
San Jacinto	1976	+36.0		57.1	15.2	24.1	41.7	+73.0		10.2	8.3	11.0	8.7	-20.9	
San Patricio	1971			17.1	22.6	20.0	18.4	-11.5	-18.6	*	*	7.9	7.6		
San Saba	1969	+19.0	-9.3	35.3	12.0	14.3	*	-66.0	-59.5	12.7	15.5	16.6	10.7	+22.0	+30.7
Smith	1979	+19.8		33.5	24.8	18.6	15.1	-18.8		8.7	9.7	9.8	8.8	-10.2	
Starr	1970	+16.9	+54.0	16.9	12.8	6.2	16.8	-51.5	+31.3	5.5	6.7	6.6	6.0	-1.5	-10.4
Terry	1975	+3.4		51.2	38.3	17.5	9.1	-48.0		7.2	8.4	8.3	6.7	-19.3	
Travis	1967	+20.4	+46.4	23.1	16.5	11.4	9.2	-28.6	-50.6	6.7	6.2	5.6	5.6	-7.5	-16.4
Trinity	1980			45.9	24.0	22.2	25.0	*		17.5	16.1	16.3	14.2		

TABLE 7: (continued)

COUNTY SERVED BY RHI OR MH CLINIC	YEAR OF GRANT	POPULATION[2] INITIAL % CHG ≤ 5 YRS	POPULATION[2] SUSTAINED % CHG ≤ 10 YRS	INFANT MORTALITY RATES[3] 1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS	GENERAL MORTALITY RATES[3] 1965	1970	1975	1980	INITIAL % CHG ≤ 5 YRS	SUSTAINED % CHG ≤ 10 YRS
Upshur	1979	+16.2		38.6	20.8	9.5	10.8	+13.7		10.7	10.6	10.1	10.1	0	
Val Verde	1979	+13.6		28.3	18.3	16.1	8.0	-50.3		7.2	6.6	6.7	6.5	-3.0	
Waller	1975	+26.0		19.4	38.1	27.3	10.0	-63.4		8.4	9.5	8.4	9.1	+8.3	
Wood	1979	+15.9		35.6	8.8	12.1	5.9	-51.2		14.3	15.6	12.6	13.7	+8.7	
Yoakum	1975	+13.7		31.6	34.5	6.5	24.8	+281.5		4.9	6.5	6.8	6.5	-4.4	
Zapata	1970	+10.3	+52.2	*	25.3	18.2	19.5	-26.0	-22.0	2.6	9.7	8.8	9.1	-9.3	-6.2
Zavala	1973	+0.3	+2.6	37.0	32.5	25.8	36.9	-20.6	+13.5	5.2	7.3	7.1	6.9	-2.7	-5.5

*Not calculated if the number of live births is less than 20.

Sources: 1. Regional Office, Region VI, Department of Health and Human Services, Dallas, Texas, July, 1981.
2. Based on population figures from the U.S. Department of Commerce, Bureau of the Census Washington, D.C.,980.
3. Texas Vital Statistics, 1980. Texas Department of Health, Austin, Texas, 1965, 1970 1975, and 1980.

Table 8 presents a random sample of non-metropolitan medically underserved counties in Texas not served by either a RHI or a MH project. This sample of counties allows comparison of infant and general mortality rates with counties which are served by RHI's and MH projects. No difference is apparent in infant mortality rate reduction between the two sets of counties. However, the randomly sampled counties do differ in that their 1970 poverty rates are less than the poverty rates of those counties served by RHI's and MH projects. Table 9 lists the poverty levels in both sets of counties and gives the mean poverty level. The mean poverty level is higher for the counties which are served by RHI and MH programs. Table 10 gives the counties by percent of poverty. The majority of counties served by federal health programs fell in the over thirty percent category.

Table 10
Summary of Counties by Poverty Levels

Counties Percent of Poverty	Counties Without RHI's	With RHI's
	Number	Number
less than 20%	6	7
20-29%	33	17
30-39%	15	21
40-49%	3	6
50-59%	0	5
60-70%	0	1
Total Counties	57	57

Source: Poverty in Texas 1973, Texas Department of Community Affairs, Austin, Texas, 1974.

Table 8: Comparisons of Infant Mortality Rates and General Mortality Rates for a Random Sample of Medically Underserved (MUA) Counties in Texas.

	INFANT MORTALITY RATES						GENERAL MORTALITY RATES					
COUNTY	1965	1970	1975	1980	% CHANGE 1970-1975	% CHANGE 1970-1980	1965	1970	1975	1980	% CHANGE 1970-1975	% CHANGE 1970-1980
Anderson	30.1	42.7	30.1	14.2	-29.5	-66.7	13.0	14.4	13.3	11.7	-7.6	-18.8
Austin	9.5	20.7	31.3	28.7	+46.4	+38.6	11.4	14.0	15.0	12.5	+7.1	-10.7
Bailey	54.1	45.9	7.4	6.3	-83.9	-86.3	6.1	7.2	6.5	8.7	-9.7	+20.8
Bandera	35.7	*	32.8	39.0	*	*	12.6	12.9	14.0	11.0	+8.5	-14.7
Baylor	22.5	46.9	*	*	*	*	11.0	13.0	15.6	11.6	+20.0	-10.8
Borden	*	*	*	*	*	*	4.4	4.5	6.3	4.7	+40.0	+4.4
Brooks	40.0	36.6	18.4	5.7	-49.7	-84.4	5.2	9.6	9.9	7.9	+3.1	-17.7
Calhoun	21.6	19.1	32.7	9.3	+71.2	-51.3	5.2	6.3	7.1	6.2	+12.7	-1.6
Carson	30.1	23.5	47.1	*	+100.0	*	8.4	11.3	11.3	7.8	NC	-31.0
Chambers	45.9	34.6	25.4	17.6	-26.6	-49.1	6.5	8.8	9.1	6.5	+3.4	-26.1
Childress	10.2	*	40.4	18.7	*	*	14.1	13.9	14.0	12.8	+0.7	-7.9
Coleman	51.1	27.3	15.7	6.4	-42.5	-76.6	13.3	19.0	16.5	17.5	-13.2	-7.9
Colorado	44.7	28.6	16.8	12.0	-41.3	-58.0	10.0	13.0	13.6	12.9	+4.6	-0.8
Concho	19.6	47.6	*	*	*	*	8.1	17.0	16.4	8.2	-3.5	-51.8
Culberson	40.5	12.8	*	10.4	*	-18.8	3.4	7.0	4.3	6.3	-38.6	-10.0
Dawson	40.0	21.4	21.9	16.9	+2.3	-21.0	7.0	10.2	9.7	9.4	-5.0	-7.8
Dewitt	39.7	23.2	18.9	11.9	-18.6	-44.4	13.3	14.3	15.4	16.1	+7.7	+12.6
Donley	*	16.7	*	*	*	*	14.1	20.9	15.4	12.8	-26.3	-38.8
Eastland	15.2	21.8	23.8	21.4	+9.2	-1.8	16.6	17.2	17.7	15.5	+2.9	-9.9
Ector	18.8	20.7	9.8	10.2	-52.7	-50.7	12.7	14.8	12.2	11.3	-17.6	-23.6
Fannin	32.4	29.6	31.7	7.0	+7.1	-76.4	13.5	16.9	13.7	13.8	-18.9	-18.3
Foard	50.0	*	*	*	*	*	9.6	15.8	9.1	17.1	-42.4	+8.2
Freestone	35.4	36.5	18.8	4.4	-48.5	-87.9	15.0	17.0	16.6	13.6	-2.4	-20.0
Glasscock	*	*	45.5	*	*	*	3.9	6.9	5.5	4.6	-20.3	-33.3
Grimes	21.5	40.5	21.9	14.7	-45.9	-63.7	12.1	15.7	14.9	13.4	-5.1	-14.6
Hamilton	*	28.2	15.4	23.0	-14.6	-18.4	17.5	16.1	18.8	14.7	+16.7	-8.7
Henderson	34.9	22.6	19.3	5.3	-14.6	-134.5	11.2	12.0	11.7	10.8	-2.5	-10.0
Houston	26.1	20.2	10.1	7.0	-50.0	-65.3	11.2	14.8	14.1	10.7	-4.7	-27.7
Hutchinson	18.8	35.4	24.6	12.4	-30.5	-65.0	6.3	8.6	9.2	9.7	+7.0	+12.8
Jack	27.4	38.0	*	9.0	*	*	10.9	10.7	14.8	12.6	+38.3	+17.8
Jim Wells	17.7	23.8	13.0	6.7	-45.4	-71.8	7.1	7.8	7.3	7.7	-6.4	-1.3
Karnes	30.2	17.2	14.6	7.8	-15.1	-54.7	9.9	13.4	9.9	13.5	-26.1	+.7
Kent	41.7	*	*	*	*	*	7.6	10.5	9.2	7.0	-12.4	-33.3
King	*	*	*	*	*	*	9.2	10.8	2.5	7.1	-76.9	-34.3

TABLE 9: Comparison of 1970 Poverty Levels in Counties Served by a Rural Health Initiative (RHI) and/or Migrant Health (MH) Clinic to Medically Underserved (MUA) Counties Not Served by a Rural Health Initiative and/or Migrant Health Clinic.

COUNTIES SERVED BY RHI AND/OR MH CLINICS				RANDOM SAMPLE OF COUNTIES NOT SERVED BY RHI AND/OR MH CLINICS			
COUNTY	1970 PERCENT POVERTY	COUNTY	1970 PERCENT POVERTY	COUNTY	1970 PERCENT POVERTY	COUNTY	1970 PERCENT POVERTY
Armstrong	9.3	Lamb	32.8	Anderson	27.2	Hutchinson	10.9
Atascosa	34.0	La Salle	53.0	Austin	30.6	Jack	20.0
Bee	29.3	Leon	40.2	Bailey	25.1	Jim Wells	31.5
Blanco	25.6	Limestone	33.4	Bandera	21.0	Karnes	39.4
Bowie	17.9	Llano	21.6	Baylor	26.2	Kent	29.3
Briscoe	2..8	Lynn	32.5	Borden	15.1	King	19.8
Caldwell	43.4	Maverick	50.8	Brooks	44.7	Kleburg	29.4
Castro	30.1	Medina	30.6	Calhoun	20.3	Lee	32.2
Cochran	35.5	Motley	34.7	Carson	10.5	Live Oak	32.7
Comal	16.4	Nueces	21.5	Chambers	21.8	McCulloch	25.2
Comanche	25.6	Polk	32.4	Childress	21.5	Marion	39.9
Crosby	31.9	Rains	24.5	Coleman	28.8	Matagorda	24.4
Deaf Smith	23.3	Red River	36.8	Colorado	22.4	Menard	36.6
Dimmit	61.7	San Jacinto	39.9	Concho	25.2	Mitchell	27.7
Duval	49.0	San Patricio	32.6	Culberson	25.4	Nolan	24.5
Floyd	30.6	San Saba	36.9	Dawson	29.2	Oldham	14.9
Frio	43.5	Smith	16.9	Dewitt	29.9	Parmer	23.8
Garza	22.6	Starr	54.9	Donley	24.2	Refugio	25.5
Gonzales	36.0	Terry	23.9	Eastland	25.3	Runnels	28.6
Guadalupe	22.1	Travis	16.6	Erath	23.9	Sabine	36.0
Hale	25.5	Trinity	34.2	Fannin	25.4	Schleicher	30.7
Hall	23.3	Upshur	24.9	Foard	33.0	Stonewall	28.4
Hays	30.4	Val Verde	30.3	Freestone	32.7	Swisher	23.6
Hockley	27.2	Waller	29.3	Glassock	23.0	Throckmorton	14.0
Hudspeth	33.2	Wood	24.0	Grimes	41.4	Walker	31.3
Hunt	18.1	Yoakum	16.4	Hamilton	22.8	Washington	31.8
Jim Hogg	49.8	Zapata	57.8	Henderson	24.8	Wharton	30.6
Kinney	60.7	Zavala	48.5	Houston	41.5	Williamson	24.5
						Wilson	30.0
MEAN PERCENT OF POVERTY			31.7	MEAN PERCENT OF POVERTY			27.05

Source: Poverty in Texas 1973. Texas Department of Community Affairs, Austin, Texas, 1974.

Table 8: Continued

	INFANT MORTALITY RATES						GENERAL MORTALITY RATES					
	1965	1970	1975	1980	% CHANGE 1970-1975	% CHANGE 1970-1980	1965	1970	1975	1980	% CHANGE 1970-1975	% CHANGE 1970-1980
COUNTY												
Kleburg	25.9	10.1	7.8	8.2	-22.8	-18.8	7.2	5.6	5.6	6.5	NC	+16.1
Lee	45.0	30.9	31.9	18.3	+3.2	-40.8	13.2	14.8	16.2	12.4	+9.5	-16.2
Live Oak	34.7	*	21.5	16.1	*	*	7.6	10.8	10.5	8.0	-2.8	-25.9
McCulloch	7.4	15.7	21.1	15.4	+34.4	-1.9	1.7	16.7	16.4	14.1	-1.8	-15.6
Marion	29.7	9.1	9.7	21.7	+10.3	+138.5	12.6	13.6	18.2	14.1	+33.8	+3.7
Matagorda	36.2	8.5	13.5	11.6	+58.8	+36.5	7.9	7.2	10.3	8.6	-43.1	+19.4
Menard	18.9	44.4	*	55.6	*	+2.5	15.6	14.7	13.8	9.8	-6.1	-33.3
Mitchell	18.7	47.6	18.9	24.4	-60.3	-48.7	10.0	16.3	13.1	10.0	-19.6	-38.7
Nolan	21.8	13.2	29.4	12.1	+122.7	-8.3	11.0	11.4	12.4	11.8	+8.7	+3.5
Oldham	*	35.7	*	*	*	*	6.4	9.7	4.8	5.7	-50.5	-41.2
Parmer	43.7	24.8	40.7	7.8	+64.1	-68.5	6.0	6.3	5.0	7.0	-20.6	+11.1
Refugio	28.2	18.2	13.8	21.0	-24.2	+15.4	8.8	6.4	10.2	10.8	+59.4	+68.8
Runnels	20.9	13.3	19.7	*	+48.1	*	12.4	14.2	15.2	13.1	+7.0	+7.7
Sabine	45.5	15.4	30.0	*	+94.8	*	12.3	16.1	14.9	12.6	-7.5	-21.7
Schleicher	21.7	29.4	*	16.7	*	*	6.6	13.6	6.9	11.8	-49.3	-13.2
Stonewall	*	*	*	*	*	*	9.2	13.8	15.2	12.1	+10.1	-12.3
Swisher	38.1	41.5	14.3	12.3	-66.5	-70.4	6.7	9.9	8.9	7.9	-10.1	-20.2
Throckmorton	26.3	15.4	*	*	*	*	14.7	18.6	20.9	18.0	+12.4	-3.2
Walker	31.5	18.3	18.8	8.0	+2.7	-56.3	7.7	7.2	5.3	4.8	-26.4	-33.3
Washington	27.3	28.6	11.8	16.1	-58.7	-43.7	12.2	12.7	13.5	13.1	+6.3	+3.1
Warton	26.1	15.7	14.0	14.5	+10.8	-7.6	9.7	8.9	10.6	9.3	+19.1	+4.5
Williamson	27.1	17.3	22.7	5.8	+31.2	-66.5	11.4	11.9	9.8	7.7	-17.6	+35.3
Wilson	23.8	13.5	8.2	3.1	-39.3	-77.0	10.6	9.0	10.4	7.7	+15.6	-14.4

*Infant Mortality not computed for less than 20 live births.

Source: Texas Vital Statistics 1980. Texas Department of Health, Austin, Texas, 1979. Percent calculated from published rates.

It appears that the primary differences between the non-metropolitan medically underserved counties who receive services from federal health programs and their counterparts which do not have these programs, may be related to the level of poverty. The poverty level among the counties which are served is more severe than those counties which served as the control group. This is consistent with DHHS policy of funding projects in counties with high levels of poverty.

The general mortality rates are difficult to interpret. The striking difference is that the death rates of the federally served counties remain stable as compared to the sporadic fluctuations of the non-federally served counties. Perhaps when counties have stable health practices, death rates remain consistent.

State efforts to provide primary care services will be reviewed next.

State Efforts to Meet Rural Health Needs

State efforts to meet health needs of rural Texans are limited. On the state level there are no programs comparable to the federally funded Rural Health Initiatives or Migrant Health Clinics in nonmetropolitan Texas. The loan program of the State Rural Medical Education Board is similar to one aspect of the NHSC. A brief discussion of state efforts is presented by agency.

Texas Department of Health

Efforts by the Texas Department of Health, to serve the health needs of rural Texans are limited. Within Texas, 179 of the 254 counties have no local or county health department. There are 12 public health regions in Texas which were created by the 65th Legislative. Through the public health regions, communities tha have no local health department can be

assured of adequate services. Cities and counties that already have a local health department can receive consultation and assistance from public health specialists. The purpose of the regional program is to:

1. provide comprehensive preventive health services to the state's rural population;
2. provide an effective mechanism for services and assistance to local health departments; and
3. integrate many of the categorical public health programs.

The targeted population of the 12 public health regions are those individuals who reside in the 179 counties without local health departments. While the Health Department offers a wide range of preventive health services, funding problems have hindered the State Health Department's efforts to deliver comprehensive health care. No primary care clinics are operated by the State Health Department. Therefore, rural Texans are dependent upon local or private medical services or the federally funded clinics for primary health care services.[51,56]

Rural Medical Education Board

The State of Texas duplicates one of the functions of the National Health Service Corps. This function is providing loans to medical students. The loans are granted by the State Rural Medical Education Board. This Board was initiated in 1973 for the "purpose of granting loans to qualified medical students who intend to practice medicine in rural areas of Texas."[57] Students who accept this loan must practice medicine in rural Texas for a period of five years in order to have the loan payment "forgiven".[57] However, there is an option which allows the student to buy out of the program after two years of practice in a rural area.[57,58]

The objectives of the State Rural Medical Education Board are as follows:

1) answer inquiries regarding the loan program;

2) approve and process all loan applications and payment;

3) provide a means by which qualified persons may attend medical school in order that they may practice medicine in rural areas; and;

4) attempt to increase the number of physicians practicing in rural areas of Texas.[57,58]

In 1982, the State of Texas subsidized 157 medical students and 82 medical residents. The average loan figure for 1982 was $4,000. Supplemental loans range from $350 to $3,000. Thus far, only nine doctors who were subsidized through this program, are currently in practice in rural Texas. It will require several years for the State Rural Medical Education Loan Program to produce an adequate number of physicians to replace the NHSC doctors presently in Texas. The Board, unlike the NHSC, doesn't provide loans to other health professional students.[58]

Texas Agricultural Extension Services

The Texas Agricultural Extension Service came into existence with the passage of the Smith-Lever Act in 1914. Funding for the Extension Service is provided by federal, state and local county governments and administered through Texas A&M University.[59]

The Texas Agricultural Extension Service is not a service delivery agency. Its health related functions are strictly in the areas of health education and nutrition. "The Extension Service conducts informal educational programs based on specific problems which have been identified and assigned a high priority by the people who participate in both the planning and the implementation of such educational programs."[59] The work of the Extension Service is focused to help people help themselves.

In the area of family living and improved nutrition, health related program content includes nutrition, interpersonal relationships and health and safety practices. Other areas which are addressed by health related Texas Agricultural Extension Service programs include soil and water conservation, pesticide safety and environmental improvement.

The Texas Agricultural Extension Service functions in the dissemination of health related information and the latest scientific research findings. The scope of health related extension service work is limited to educational workshops, news releases, printed materials and media for problem solving at primarily the individual and community level. Information requests are handled at the county level by the county agent. All counties in Texas have a county agricultural extension service agent.[59,60]

Texas Department of Community Affairs

The Texas Department of Community Affairs was created to serve as a mechanism at the state level to assist local governments by providing human, financial, and technical resources. The intent is to maximize the opportunities available to local governments in the state of Texas. The six divisions are: Local Government Services, Children and Youth Services, Economic Opportunity, Housing, Manpower Services, Drug Abuse Prevention. All divisions work closely with community action agencies and regional councils of government. The staff of the Local Government Services provides technical assistance to communities for the development and management of basic public services.[57,61]

Major problems of the federal health programs, which have created barriers to health care delivery will be reviewed next.

Impediments Effecting Federal Programs in Health Care Delivery

The Rural Health Initiatives, Migrant Health Programs and National Health Service Corps have all experienced obstacles to health care delivery which have affected program implementation and results. The following discussion will focus on the barriers, identified from previous data, which have had the greatest effect on the delivery of program services to rural Texans.

Funding

A major problem is that of inadequate funding to meet the costs of legislated services. Increased funding cuts are not only a reality but may be part of a growing trend in federal policy. Federal efforts to provide health care to medically underserved rural areas have been essential, because these programs are located in economically depressed areas. Whether the funding cuts are dealt at the federal level or come as a result of block grant priority shifts at the State level, the result will be the elimination of essential health services to medically underserved rural Texans. The economic realities of the 1980's have created problems for the federally sponsored health programs.

The Federal funding for these programs has been cut at least 25 percent. With rising inflation, and increases in supply costs, rent and employee salaries, it is highly improbable that the programs will be able to provide quality of patient care. In addition, clinic directors have been expected to achieve economic self-sufficiency within a given number of years.

Directors of many RHI's and migrant health clinics have indicated that no where in the law does it state that the clinics are to become economically independent. The fact that these federal health programs were designed to serve an impoverished, medically underserved population means that the same dollar standards that apply to other populations are not appropriate. Given the funding realities of the 80's incorporation of this fact into federal and state policy will become essential for program survival.

Lack of Transportation Services

During the more lucrative days of the federally funded health programs, most clinics were able to assist patients with transportation to the clinic or the Public Health Hospital in Galveston. The cut back in funding and continued inflation has forced the clinics to reduce these services. The poor, elderly, and needy, who represent the majority of people seen at the clinics, often do not have their own transportation. Within rural settings, public transportation is not as readily available as it is in metropolitan areas. One clinic identified its population served as being in the upper age brackets. The clinic director indicated that these clients were unable to arrange transportation to the clinic and thus were simultaneously unable to receive basic primary care services. Lack of transportation, as a barrier to health care is tightly interwoven with current budgetary restrictions.

Related to the issue of lack of transportation are the time and distance factors which separate clients from health services. As previously indicated, the only Public Health Hospital in Texas is located in Galveston. This location, because of the vast size of Texas, limits the patient's ability to receive optimal in-patient services.

Poverty

Poverty is an impediment to the effective delivery of health services to rural Texans. Impoverished people have more health problems and fewer resources. Additionally because of circumstances of Texans that are poor they may have different priorities and identify different health needs.

Rural poverty contributes to the low number of physicians in rural Texas. Basically, a private medical practice is a capitalistic enterprise which operates by the same rules governing any other private business. A private physician cannot nor should not be expected to provide free services or services at such a nominal cost that he cannot meet overhead and maintain profit margins. Therefore, it is imperative to maintain government funded primary care facilities for those citizens who cannot afford the cost of private medical care.

Unavailability of Services to Migrants

Other time and distance problems are related to the availability of clinic services in all counties where migrant or seasonal workers are employed. Because of the sporadic nature of the work performed by the migrant/seasonal workers, it is imperative for the migrant to minimize time lost from work. The migrant worker is paid by the amount of work completed and not compensated for sick-time.

Another factor which places restrictions on the migrant population specifically, is Medicaid requirements. Even without the reduction of budgets for the clinics, the migrant worker would have difficulty in receiving medical care because of ineligibility for Medicaid. If the restrictions for qualifying for Medicaid were eased, the migrant workers and

their families would have the option of seeking services from the private medical sector.

Historically, migrants were often denied services by private physicians, thus, preventive medicine was not accessible to them. Reducing the restriction and making Medicaid more accessible, would also aid the clinics in becoming financially autonomous. Thus budgetary cutbacks could be partially offset by the revenue from services provided to the migrants and their families.

The lack of vacation time, sick time benefits, or health insurance, for the migrant or seasonal workers results in these individuals delaying visits to the doctor. This fact compounded with distant clinic locations, discourages the migrant/seasonal worker from seeking primary care services. However, certain clinic directors have indicated that this pattern is changing. For example, due to health education, clients are requesting services earlier, thus minimizing the disease process.

The barriers identified in this section are only a few of the problems which exist in health care delivery to rural Texans in need of federally assisted health programs. To reduce the quality of these programs through further financial cutbacks, will only serve to increase the likelihood of a return to the previous health status that this population experienced prior to their inception. One can expect the infant mortality rate to rise and chronic conditions such as diabetes and hypertension to go undetected, or untreated.

Assessment of the Impact of the Federal Health Programs in Rural Texas

Data which reflects federal efforts to provide primary health care to rural Texans will now be evaluated. The following criteria have been developed to assess the impact of the federal health programs on rural Texas. The criteria are not ranked according to importance, as their importance may vary from clinic to clinic. Other criteria are plausible, but for the sake of addressing major concerns, the following have been selected:

1. the availability of health services;
2. health indicators;
3. service to the target population
4. services provided are appropriate for the population served;
5. adequate funding to meet operational costs;
6. cost per medical encounter;
7. appropriate location of the clinics;
8. feasibility of economic independence;
9. services provided where the state has not provided them;
10. attempts to encourage a private physician to establish practice within the rural medically underserved counties;
11. coordination with other government or private sector health care agencies;
12. reporting and record keeping mechanisms and;
13. quality assurance mechanisms.

Each of the criteria, for evaluating the impact of the federal health programs in rural Texas, will be discussed with the intention of determining whether or not the specific criteria has been met.

The Availability of Health Services

The most important impact of the federal health programs has been the establishment of primary health care clinics. Each clinic site was located within an area which met all the criteria for being designated as medically underserved. Some clinic sites also met the criteria for a Health Manpower Shortage Areas and/or a High Migrant Impact Area. Many rural Texans' incomes fall below the poverty level. This fact can and does limit some rural Texans' ability to afford transportation to the health care facility. By locating these clinics in areas of high poverty levels, rural residents now have better access to health care.

With the establishment of federal programs in rural areas health care is feasible for those who are poor, and who may not qualify for Medicare, Medicaid, Title XX, or private insurance. The federal effort to establish primary care facilities with reasonable cost and within the catchment areas of those of greatest need, has been successful.

Health Indicators: Infant and General Mortality Rates

Infant mortality rates were studied to determine if change had occurred in the counties where federal programs are now providing primary health care services. Over a ten year period, the counties having clinics located within their boundaries reported significant drops in infant mortality rates. This change may have resulted from the presence of a primary health care facility. A random sample of non-metropolitan medically underserved counties was studied to compare the change in infant mortality and general mortality rates. The infant mortality rates of the counties in the sample, all lacking federal health care facilities, dropped. The primary difference between the counties served by the federal health care

programs and the counties which were designated as being medically underserved and having no federal program was income level. Two interpretations can be offered. First, the income level of the counties being served was less than the random sample, making health care affordable to the sampled population. Alternatively, the federal officials correctly assessed and met the health care needs of the counties by the funding of RHI's and MH clinics.

The general mortality rate for both groups of counties was compared. Differences in ethnic distribution and poverty levels, make this data more difficult to interpret. It is known that minority groups generally have a shorter life span than the dominant cultural group. The data showed a stable general mortality rate in counties served by RHIs and MH clinics as compared to a fluctuating general mortality rate in unserved counties.

Services to the Target Population

The counties or catchment areas for federal health programs in rural Texas are located appropriately for the provision of health care services. Each county has met the criteria for designation as both a medically underserved and/or health manpower shortage area. Those counties serving migrant/seasonal workers also have met the criteria for a high migrant impact area. The population served by the federal programs have had difficulty accessing health care through the private sector, either due to distance or financial barriers. Again, the selected sites for the federal programs are appropriate and serve those with the greatest health needs in nonmetropolitan Texas.

Services Provided Are Appropriate for the Population Served

Services offered by each of the federal health programs meet the criteria outlined in the law for primary and supplemental health care services. However, the issue of services to be provided is problematic. Clinic staff members report growing difficulty in meeting mandated standards. This fact is attributed to the continuous cutbacks in funding.

Funding decreases and inflationary trends continue to force reduction in services. The first services to be eliminated are those in the supplemental category. For example, some clinics are no longer able to pay for the initial visit to a specialist by the client. Other affected services include outreach services, casefinding services, and transportation to the clinic or to John Sealy Hospital in Galveston.

Although most of the clinics are still able to operate adequately within the current financial constraints. Greater fiscal flexibility would allow the clinics to tailor their services to meet the special needs of their target populations. Thus, these programs could maximize the delivery of health services to the diverse population making up rural Texas.

Adequate Funding to Meet Operational Cost.

Funding for any program whether private or public is always a critical issue. Determination of operational costs for a federal program requires the submission of a total budget; with salaries, and costs for equipment, supplies, rent, and telephone expenditures. As the economy currently has a double digit rate of inflation, predicting operational costs over a year's time can be problematic. The clinics' staff have all indicated that funding was inadequate for the clinics to operate according to the original intent of the law. The Reagan Administration has required

a 25 percent cutback for these programs. This cutback, coupled with the rate of inflation, will have profoundly negative effects upon the clinics ability to provide the mandated services.

Cost Per Medical Encounter

Federal guidelines require that the Rural Health Initiative, the Migrant Health Program and the Free Standing NHSC Clinics achieve a cost per medical encounter after two years of operation of $16 to $24. The aggregate figures demonstrate that the clinics have succeeded in meeting this goal. Taken individually, some clinics fall outside the required boundaries. Cost deviations have resulted from special problems at certain clinics. However, due to current economic conditions and the increasing cost of health care, the cost per medical encounters may not remain within recommended guidelines.

Appropriate Location of the Clinics

Clinics are located in catchment areas with the greatest need. The designated sites appear appropriate, but may be insufficient in number. Most clinics are found in the county seat which is generally the local center of commerce. Clinic locations are designed to combine and integrate services, thus maximizing use and reducing costs.

Feasibility of Economic Independence for the Federal Clinics

Directors of both Rural Health Initiatives and Migrant Health Clinics have indicated that pressure has been placed upon them by the Public Health Service Administration in Washington to achieve economic independence. No where in the law does the mandate of economic independence

appear. The intent of the law is to establish primary health care services in those areas, rural or urban, where the greatest health care needs exist.

Need designation is based on factors which render an area as medically underserved. Part of the criteria for medically underserved status requires that a significant proportion of the population be below the poverty level and/or elderly. The elderly are generally on fixed incomes. Achievement of economic independence from government subsidization requires the presence of a population with sufficient wealth to defray the costs of operation. The population served by the federal programs does not meet that criteria.

Services Provided Where the State Has Failed to Provide Them

The Public Health Service Act outlines the services that Rural Health Initiatives and Migrant Health Programs are to provide to their client population. Some of these services are similar to those provided by the State health department. For example, immunization, venereal disease screening and treatment are duplications of state services. However, it has been demonstrated that over 179 counties in Texas have no local health department so access to these services can be limited. The reduction in the budget for federal programs may effect these programs' ability to continue providing services which the State is to offer to their residents.

Attempts to Encourage a Private Physician to Establish a Practice within Rural Medically Underserved Texas Counties

A few physicians who received financial assistance from the NHSC have opted for private practice in rural Texas. The majority have served out their obligation in federal health programs and left the area when their obligation was completed. Some have settled in Texas but not in medically underserved areas.

Many factors inhibit the impetus to practice medicine in medically underserved rural Texas. They include a sparse population, a poverty level too great to bring in adequate revenue to cover operating costs, distance from metropolitan areas where the physician and his family have access to cultural events, and a lack of other peers for both professional and social contact.

Without incentives, particularly financial incentives, the likelihood of physicians and other health professionals relieving the current medical manpower shortage in rural Texas is not great.

Coordination with Other Government or Private Sector Health Care Agencies

Generally, the location of the clinic and the stability of the staff were primary factors influencing the utilization of other government or private sector programs. Most clinics which had access to private doctors did utilize the private physician for specialty care. Some clinics, however, reported that the private doctors in their areas made no referrals to the clinic and accepted no referrals from the clinics.

The most frequent type of referral was for obstetrical care. All clinics, unless they have a birthing facility, referred the pregnant woman to a physician by the seventh month of pregnancy. The types of referrals

were appropriate to meet the specific needs of the client population. For example, one clinic serving an elderly population with a high incidence of cataract disease contracted with a private physician in a nearby metropolitan area to conduct weekly ophthalmological clinics. Over all, clinics did utilize other agencies to meet the patient's needs. The degree to which other agencies were utilized was dependent upon the clinic location and longevity of staff employment. Rapport with other agencies was consistently viewed as essential.

Reporting and Record Keeping Mechanisms

Most clinics reported that the paperwork was too time consuming and that much of the information required on certain reporting forms had to be duplicated for other agencies. Clinics have to report to the regional office of the Department of Health and Human Services quarterly and to the federal office annually. In addition, they must make a monthly report to the State health department if any reportable communicable diseases occurred. Programs with other federal responsibilities, such as the WIC Program, have to file additional reports. The duplication of information is time consuming for the clinic staff. Bureaucratic demands take away from the time needed to provide quality health care.

Quality Assurance Mechanisms

The staff of the Bureau of Community Health (BCHS) has developed an evaluation approach for the purpose of "assuring the high quality of health care in all Bureau projects. The current Bureau approach is to provide projects with a general framework for developing their own quality assurance system and to ask projects for specific performance levels and

pieces of data which a functioning quality assurance system should be able to provide.[50]

Seven clinical indicators have been isolated for evaluation in projects. The list of clinical indicators of medical care quality is necessarily selective, not comprehensive. Areas of particular concern have been chosen in which quantifiable goals can be set. However, some projects are likely to have additional quantifiable goals and information needs. While projects are expected to use these indicators as a minimum, they are also encouraged to go beyond this list in developing goals and review procedures in areas of special importance to the population they serve.[50]

However, this data collection activity does not constitute a quality assurance program according to the BCHS. It merely samples areas which are likely to indicate the effectiveness of such a program.

As of December 1980, 13 of the 22 programs were in compliance with the seven indicators. Four more have been operational less than two years. Clinics not in compliance have the option to apply for a waiver under special circumstances.

Summary

Thirteen criteria were developed to assess the impact on rural Texas by the Rural Health Initiative, Migrant Health and National Health Services Corps programs. These programs have benefitted the targeted populations. Previous to the programs existence, many rural Texans had no access to primary health care. It was found that budgetary cutbacks by the Federal government affected many of the programs ability to meet the criteria. For example, certain services previously offered by clinics had to be eliminated. The cutbacks also effect the numbers of personal services.

The impact of federal health programs on rural Texas was determined. This assessment demonstrated that the Rural Health Initiative, Migrant Health and National Health Services Corps Programs have had an effect on the health status of rural Texans.

Conclusions

The health status of rural Texans was presented. A review of the Community Health Centers, Migrant Health, Rural Health Initiative and the National Health Service Corps programs followed. The impact of these programs upon rural Texans was assessed.

From the information presented concerning the assessment, conclusions about the impact of Rural Health Initiatives, Migrant Health Clinics and the National Health Service Corps in rural Texas can be drawn:

- There has been an increase in access to health care for poor rural Texans.
- Comprehensive primary care services have been established in areas which were previously without these services.
- An effort to create rural health care delivery systems which coordinated and utilized available public (federal and state) and private health funds, programs and services was effected.
- There has been a decrease in the infant mortality rate in the counties served by the federally funded health programs.
- There has been a stabilization of the general mortality rate in the counties served by the federally funded health programs.
- Care has been provided to migrant and seasonal farmworkers who previously had no or limited access to primary health care.

- Rural Health Initiatives and Migrant Health Clinics have generally been located in rural medically underserved areas of greatest need.
- The majority of Rural Health Initiatives and Migrant Health Clinics provide cost effective services to their target populations.
- The State of Texas does not have any programs similar to the Rural Health Initiative Program or Migrant Health Program.
- The State Rural Medical Education Board duplicates one function of the Natural Health Service Corps by providing loans to medical students.
- Rural Health Initiatives and Migrant Health Clinics because of the population they serve will be unable to maintain adequate services without federal, state and/or local monetary support.
- Reporting requirements for federally funded health programs are duplicative and time consuming.
- The federally funded health programs do provide quality primary health care to medically underserved rural Texans.

REFERENCES

[1]A World of Opportunity: Programs of the Public Health Service. U.S. Department of Health Education and Welfare. Public Health Service Publication No. CCPM40, 1096.

[2]Hanlon, John J. Public Health Administration and Practice. St. Louis: C. V. Mosby Company, 1974.

[3]Raffel, Marshall W. The U.S. Health System: Origins and Functions. New York: John Wiley and Sons, 1980.

[4]Public Law 89-117. Community Health Services Extension Amendments of 1965. Washington, D.C.: U.S. Government Printing Office, 1965.

[5]Davis, Karen and Schoen, Cathy. Health and the War on Poverty: A Ten Year Appraisal. Washington, D.C.: The Brookings Institution, 1978.

[6]Public Health Services. Community Health Centers. U.S. Department of Health, Education and Welfare Paper. Washington, D.C., 1980.

[7]Section 330 of the Public Health Service Act, Community Health Centers. Compilation of Selected Acts within the Jurisdiction of the Committee on Energy and Commerce, Volume I. Washington, D.C.: U.S. Government Printing Office, 1981.

[8]United States Code: Congressional and Administrative News. Public Law 89-109, Community Health Services Extension Amendments of 1965, 89th Congress, 1st Session, Volume 2. St. Paul: West Publishing Company, 1965.

[9]Public Law 89-749, Comprehensive Health Planning and Public Health Services Amendments of 1966, 89th Congress, 2nd Session. Washington, D.C., 1966.

[10]United States Code: Congressional and Administrative News. Public Law 89-749. St. Paul: West Publishing Company, 1966.

[11]Comptroller General Report of the Congress of the United States. Are Neighborhood Health Centers Providing Services Efficiently and to the Most Needy?, Washington, D.C., June 20, 1978.

[12]United States Code: Congressional and Administrative News. Public Law 95-83, Legislative History, 95th Congress, 2nd Session. St. Paul: West Publishing Company, 1978.

[13]Jay Feldman, Rural America; Ann Vengoski, National Rural Center. Telephone Interviews, May 18, 1981.

[14]United States Code: Congressional and Administrative News. The Health Services and Centers Amendments of 1978, Public Law 95-626, 95th Congress. St. Paul: West Publishing Company, 1978.

[15]The National Rural Center. Rural Health Newsletter. Volume V, No. 2, Washington, D.C., September 1981.

[16]U.S. Department of Health, Education, and Welfare. Public Health Service: Grants for Community and Migrant Health Service, Final Regulations, Federal Register, November 25, 1977.

[17]U.S. Department of Health and Human Services. Public Health Service Projects for Community Health Services, Federal Register, December 19, 1980.

[18]Region VI of the Department of Health and Human Services. Louis Hines, Director of Community Health Centers; Noel 'Bo' Green, Regional Director of the Migrant Health Program; Gordon Green, M.D., Regional Medical Director of the Public Health Services. Personal interviews, May 18, 1981, June 1, 1981 and June, 1982.

[19]United States Code: Congressional and Administrative News. Public Law 94-63, The Health Revenue Sharing and Health Act, 94th Congress. St. Paul: West Publishing Company, 1977.

[20]U.S. Department of Health, Education and Welfare, Bureau of Community Health Services. The Public Health Service Rural Health Initiative, Rockville, Maryland, 1975.

[21]Department of Health Education and Welfare. Program Guidance Material for the RHI, UHI and NHSC. Washington, D.C., U.S. Government Printing Office, April, 1977.

[22]Sussman, Gerald and Lois Steinfeldt. "Capacity Building, Linkage and Rural Health Systems: The Federal Perspective," Public Health Reports, Volume 96, No. 1, January-February, 1981.

[24]United States Code: Congressional and Administrative News. Legislative History, 87th Congress, 2nd Session. St. Paul, Mn.: West Publishing Company, 1962.

[23]Designation of Health Manpower Shortage Areas. Federal Register, November 17, 1980.

[25]Section 339, Migrant Health, of the Public Health Service Act, Compilation of Selected Acts Within Jurisdiction of the Committee on Energy and Commerce, Volume I. Washington, D.C.: U.S. Government Printing Office, 1981.

[26]United States Code: Congressional, and Administrative News, Volume 2. Legislative History, Public Law 87-692, 87th Congress, 2nd Session. St. Paul, Mn.: West Publishing Company, 1962.

[27]United States Code: Congressional and Administrative News. Senate Report Number 699, Volume 2, 1962.

[28]United States Code: Congressional and Administrative News. Public Law 89-109, Community Health Services Extension Amendments of 1965, 89th Congress, 1st Session, Volume 2. St. Paul. Mn.: West Publishing Company, 1965.

[29]United States Code: Congressional and Administrative News. Public Health Service Amendments of 1968, Public Law 90-574, 90th Congress, 2nd Session, Volume 3. St. Paul, Mn.: West Publishing Company, 1968.

[30]United States Code: Congressional and Administrative News. Agricultural-Migratory Workers, Health Services, Public Law 91-209, 91st Congress, 2nd Session. St. Paul, Mn.:West Publishing Company, 1970.

[31]United States Code: Congressional and Administrative News. The Health Revenue Sharing and Health Act, Public Law 94-63, 94th Congress. St. Paul, Mn.: West Publishing Company, 1970.

[32]United States Code: Congressional and Administrative News. Health Programs Extension Act of 1977, Public Law 93-45, 93rd Congress. St. Paul, Mn.: West Publishing Company, 1977.

[33]United States Code: Congressional and Administrative News. The Emergency Health Personnel Act of 1970, Public Law 91-63, 91st Congress, 2nd Session, Volume 2. St. Paul, Mn.: West Publishing Co., 1970.

[34]U.S. Department of Health, Education and Welfare. Promoting Community Health. Washington, D.C.: U.S. Government Printing Office, DHEW Publication No. (HSA) 75-5016, 1975.

[35]Muller, F. "Physicians for the Underserved." Public Health Reports, Volume 95, No. 1, January-February, 1980.

[36]Redman, Eric. The Dance of Legislation. New York: Simon and Shuster, 1973.

[37]United States Code: Congressional and Administrative News. Legislative History, 92nd Congress, 2nd Session, Volume 3. St. Paul, Mn.: West Publishing Company, 1976.

[38]United States Code: Congressional and Administrative News. Laws, 92nd. Congress, 2nd Session, Volume 1. St. Paul, Mn.: West Publishing Company, 1972.

[39]United States Code: Congressional and Administrative News. The Health Professions Educational Assistance Act of 1976, Public Law 94-484, 94th Congress, 2nd Session. St. Paul., M.: West Publishing Company, 1976.

[40]Interviews with Medical Students of Several Cultures. Alburquerque, New Mexico, December, 1981.

[41]United States Code: Congressional and Administrative News. Legislative History, 94th Congress, 1st Session. St. Paul., Mn.: West Publishing Company, 1975.

[42]Section 331-335 of the Public Health Service Act, HMSA, NHSC, Compilation of Selected Acts Within the Jurisdiction of the Committee on Energy and Commerce, Volume 1. Washington, D.C.: U.S. Government Printing Office, 1981.

[43]Hammond Citation World Atlas. Maplewood, New Jersey: Hammond Incorporated, 1966.

[44]Wright, Rita, Bureau of Business Research, The University of Texas at Austin, 1981, 1982.

[45]Walker, Mary and Robinson-Caire, Donnie. Rural Health Care in Texas: The Facts - 1980. Austin, Texas: The Texas Rural Health Field Services Program , December, 1980.

[46]Interview with Harold Patterson, Ph.D. Texas Department of Health October 14, 1981.

[47]Texas Department of Human Resources. Derived from material provided by Bob Tyndall. "Medicaid Recipient Population, September, 1981," Austin, Texas.

[48]Texas Department of Community Affairs. Poverty in Texas 1973. Austin, Texas, Reprinted 1977.

[49]Office of Grants and Budgets. U.S. Department of Health ani Human Services, Region VI. Dallas, Texas. July 1, 1981 and July 1, 1982.

[50]U.S. Department of Health, and Human Services. Public Health Service, Health Service Administration. Primary Care Effectiveness: An Approach to Clinical Quality Assurance in BCHS Programs and Projects. Washington, D.C., April, 1980.

[51]Texas Department of Health State Planning and Resource Development Division. Selected Health Data, Texas, 1979. Data Analysis Section, June, 1981.

[52]Health Manpower Shortage Areas: Criteria for Designation. Federal Register, January 10, 1078, Part II. Volume 43, No. 6.

[53]Block Grant Programs: Final Rules, Federal Register, July 6, 1982.

[54]Texas Almanac 1981-1982. Dallas: A. H. Belo, Co., 1980.

[55]Jim White, Texas Medical Association, Austin, Texas, June 1981 and May, 1982.

[56]Dr. Robert Maclean, Texas Department of Health, Austin, Texas, June 1982.

[57]Legislative Budget Board. Performance Report to the 67th Legislature, Austin, Texas, January 1, 1981.

[58]J. C. Randolph, State Rural Medical Education Board, Austin, Texas, June, 1982.

[59]Legislative Budget Board, Request for Legislative Appropriates, Texas Agricultural Extension Service, Austin, Texas, 1972.

[60]Community Development Staff, Texas Agriculture Extension Service, Texas A&M, College Station, Texas, May, 1982.

[61]Donnie Carriker, Texas Department of Community Affairs, Austin, Texas, May, 1982.